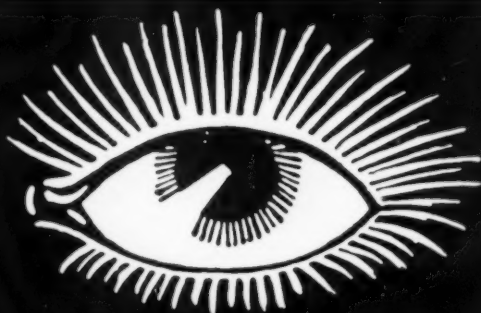
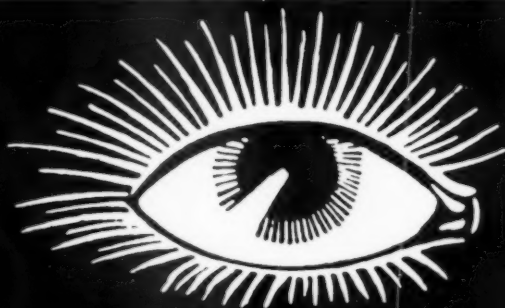


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# Electrical Contracting

*With Which Is Incorporated*  
**The Electragist**

August  
1931



**ARE YOU LOOKING  
FOR PROFIT  
ON COMMERCIAL LIGHTING BUSINESS  
?**

**IN MAKING UP YOUR NEXT BID**

Whatever you need in material . . . standard or special

Whatever you need in sales aid . . . printed or personal

Whatever you need in price

**WAKEFIELD**  
**can supply**

**THE F. W. WAKEFIELD BRASS CO. • Vermilion, Ohio, U. S. A.**  
FOR 30 YEARS MANUFACTURERS OF "RED SPOT" LIGHTING SPECIALTIES

# The NEW Benjamin "Unit" PACKAGE



Reflector, Wall Bracket and Stem,  
Conveniently Packed  
**ONE TO A CARTON**  
*Complete, Ready to be Wired and Installed*



Dome Reflector, with Wall Bracket and Stem, List.. **\$3.50**



Angle Reflector, with Wall Bracket and Stem, List.. **\$2.95**

*for lighting*

Basements  
Areaways  
Courtyards  
Alleys  
Garages  
Driveways  
Fire Escapes  
Roadside Stands  
Signs  
Tourist Camps  
Farm Buildings  
Farm Yards  
Stables  
Dairy Rooms  
Milk Houses  
Canning Sheds  
Etc., Etc.

**Low Priced  
Fast Selling**

Comprises a Benjamin porcelain enameled steel Dome or Angle Reflector, suitable for 75 or 100-watt lamps, with an easy-to-wire hood and socket, 17½-inch length of ½-inch pipe, and wall bracket. This convenient set-up eliminates the assembling of parts from many sources and does away with cutting, threading and bending of pipe.

**A Big Market — A Great  
Sales Opportunity**

This new unit package offers you countless opportunities for quick sales and immediate installations. Write today for full information.

**BENJAMIN ELECTRIC MFG. CO.,**

*General Offices and Factory:*

**DES PLAINES (Chicago Suburb) ILLINOIS**

*Divisional Offices:*

**New York**  
247 W. 17th Street

**Chicago**  
111 N. Canal Street

**San Francisco**  
448 Bryant Street



# Electrical Contracting

VOLUME 30

With which is incorporated The Electragist

NUMBER 10

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## Resale Price News

There were a considerable number of price changes this month, with many reductions, and several increases. Several new items have also been added.

Reductions will be noted in the following:

- Bushings and locknuts
- Heater cords
- Deltabeston
- Armored cable
- Electrolets
- Copperweld ground rods
- Plates for tumbler switches
- Magnet wire
- Brass shell sockets

Square D outdoor meter boxes and Type A switches are increased in price, as well as certain Noark switches. Increases are also noted in porcelain and cold molded sockets.

A new set-up has been arranged on tape on PL-27.

The new items added are Stanley & Patterson telephones on PL-28 and Dongan transformers on PL-28. Armored service entrance cable has also been added this month.

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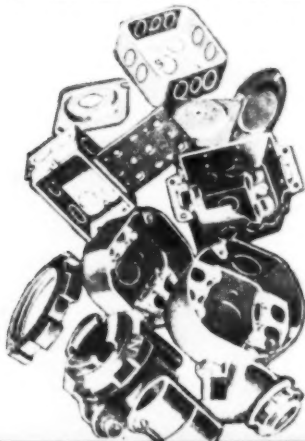
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# 6 WIRING SYSTEMS

*and*  
FITTINGS



# FIDELITY to STANDARD



*for Every Combination*

**National Electric Production**  
National Metal Molding  
Pittsburgh, Pa.



①

②

③④

# QUALITY STANDARDS

Underwriters Laboratories Inspected Non-Metallic Conduit

FLEXITUBE

Underwriters Laboratories Inspected Non-Metallic Sheathed Cable A 840000

LUMINOX

National Metal Molding

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*National Products  
melt into the job  
without those labor  
losses usually incident  
to promiscuous  
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WIRES  
and  
CABLES

NATIONAL  
ELECTRIC PRODUCTS  
WIRING SYSTEMS  
WIRES AND CABLES



# VALUE

## *far beyond its cost!*

**No** other electrical conduit can give you better assurance of proven performance than Youngstown-Buckeye. No other conduit can give you greater ease of installation than Youngstown-Buckeye. Such a combination places Youngstown Buckeye's value far beyond its cost . . . and yet it actually costs no more than other rigid steel conduits. / You will find Youngstown-Buckeye Conduit distributed by leading jobbers everywhere . . . and used by contractors in the country's finest buildings.

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 Commerce Building  
 BUFFALO . . Liberty Bank Bldg.  
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#### THE YOUNGSTOWN SHEET AND TUBE CO.

*One of the oldest manufacturers of  
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THE KNOWN MEDICAL ARTS TOWER,  
 Tacoma, Washington, one of the  
 thousands of fine American  
 buildings whose electrical wiring  
 is permanently protected by  
 Youngstown-Buckeye Conduit.

General Contractor: A. W.  
 JUST & CO., Seattle, Wash.  
 Electrical Contractor: O. A.  
 KELLY

# YOUNGSTOWN

## Let's Try Something

**I**F the depression has taught us anything, it is the hazard of one-time selling. So far we have been content to take our business from new or unwired premises, or from additions and repairs. When it came to going back to a customer two or three years later and attempting to sell additional wiring, little was done. Therefore, when the field of unwired buildings played out, there was little to fall back on.

A way must be found to sell additional wiring. It is not enough to say that the public is not interested in more wiring. We know that. We do not know, however, that the public cannot be interested in more wiring.

It is probably true that if we went out to the public and tried "cold turkey" to sell wiring, merely as wiring and nothing more, that we would not get very many orders. But is that not true of everything?

• • •

**I**T is the contention of ELECTRICAL CONTRACTING that the public can be sold anything worthwhile, if the right approach can be found. We lay no claims to knowing what this approach might be, nor do we believe that the electrical industry is the logical place to find such an approval. As electrical men we have lived too close to the details of the problem to get a good perspective of the problem itself. The

expression that one "can't see the forest for the trees" applies this case exceptionally well. The electrical industry cannot see how the job CAN be done because most of us are seeing too many reasons why it CAN'T be done.

Why, today the copper people are talking about the ease with which plumbing in an old home can be modernized—and we say we can't sell wiring!

• • •

**O**F course, it is true that what the public wants, in the final analysis, is what electricity will do—light, heat, power; but does the public know it cannot get the best 1931 effects with 1910 wiring?

Perhaps instead of waiting for greater sales of lighting, heating and power devices to sell more wiring, we might hasten the sale of these devices, if we concentrated a bit more on modern wiring.

Instead of putting forth theories why it can't be done, we might at least give it a trial. Therefore, ELECTRICAL CONTRACTING suggests that two or three advertising agencies be retained to work out a campaign and to try each of them out in two or three cities. Such a method would not be expensive, but the results would be much more positive than all the theories the industry could advance.

# Dependable Joe Castillo



## ANACONDA WIRING PRODUCTS

Rubber Covered Wire  
 ABC Armored Cable  
 Flexible Steel Conduit  
 Duraduct Loom  
 Durax Sheathed Cable  
 Flexible Cords



Joe weighs the powders that go into Anaconda rubber compounds—a job requiring accuracy and care. And Joe *is* accurate . . . all day, every day. That's why he has kept his job for seven years.

There are many Joe Castillos in our mills. Each one is skilled in his specialty, each one . . . from mine to consumer . . . helps safeguard Anaconda quality.

## ANACONDA WIRE & CABLE COMPANY

GENERAL OFFICES: 25 BROADWAY, NEW YORK  
 CHICAGO OFFICE: 20 NORTH WACKER DRIVE

*Sales Offices in Principal Cities*



# Electrical Contracting

*With which is incorporated The Electragist*

AUGUST, 1931

## Don't Let AMBITION Run Away With You

*Advises* JOHN WISE

THERE was once an inventor in Europe who had the world beat—the only difference between him and Tom Edison was about 400 years. Either this bird fell out of his high-chair or his mother was scared by a tractor, because he was nuts on machinery, and was forever rigging up some gadget to do away with work.

He finally got fed up on turning out automatic golf-ball finders and self-making beds, so what did he do but buy a used wax figure, and after nine years work with a burglar's kit and a pulmotor, he actually built himself a man! Yes, sir, he came through with a genius homo named Frankenstein who could do anything the rest of the race could and mostly better.

Now, the brains came from a ham-and-egg wrestler that dreamed he had a head-lock on Gus Sonnenberg and broke his own neck. This gave Frankie the nasty habit of taking people apart, so the inventor used him for a body-guard. Any time the boss got caught with loaded dice or passing a rubber check, he would yell for his ape-man and Frankie would wring the enemy's neck.

This worked so well that the boss got to overworking Frankie and when the dummy squawked he pushed him down a flight of steps. That was the inventor's first and only mistake, because Frankie scrambled up the stairs and tore his creator to bits.

Well, that inventor wasn't the first or last guy who built up something that destroyed him. This reminds me that here lately a lot of birds who want to sell me a few tons of this



and that have been patting my back sore and telling me I should quit piking and be a big shot. They say my success should encourage me to expand and take on everything in the book, then I will corner all the business there is by making a big splash.

But I say, none of that balloon stuff for Johnny. I can get taken to the cleaners plenty the size I am, without making myself a national institution and owing everybody from Andy Mellon down to the corner news stand. I should erect overnight a topheavy structure that will go haywire like Frankenstein and come down on my bean right after I sign the order for a yacht! No, sir, I'm ambitious and I'll build up my business, but it's got to grow like an oak and not like a weed!



This tool is valuable.  
Must be locked up  
when not in use.

All valuable tools, such as electric drills, hammers, saws, etc., are kept in individual steel boxes provided with locks. Thus the tools are protected against dust and dirt except when actually in use. All of these tools are tagged with a yellow tag calling attention to the fact that the tool is valuable and should be locked up.

All tool boxes are stenciled with the name and type of tool contained and the tool number. Manufacturers' tool numbers only are used as it is then possible to register the number of the missing tool with the manufacturer and recover it in case it is sent in for repairs.



Aside from the actual repair of tools, Burnett Electric Co., Chicago, makes taking care and keeping track of

# Taking



Miscellaneous tools are kept in steel tool boxes where they may be locked up and protected from the weather when not in use.



All tools large enough are stenciled with the company's name and the tool number. Pure red lead is used as it is most durable.

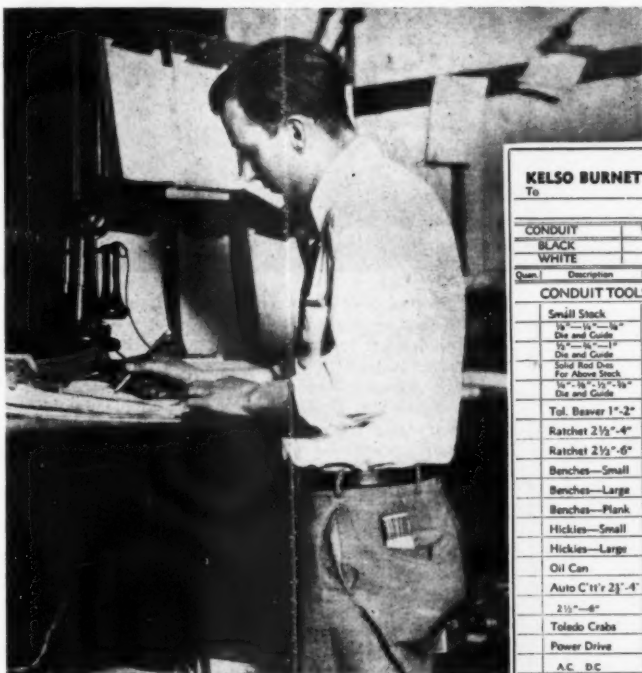
repairing of tools in the shop Kelso-  
icag, makes a special effort to  
keep track of tools on the job easy.

# Care of Tools

DEFECTIVE



When a tool breaks on the job or shows signs of wear it is tagged by the mechanic with a red tag bearing the word "defective." Thus it is brought to the immediate attention of the man in charge of maintaining tools when it is returned to the shop.



Tools are charged out to each job on a tool ticket giving the quantity and tool numbers. When tools are picked up from the job the truck-driver makes out a similar sheet and when the tools are received in the stock-room the two sheets are compared. Thus responsibility is placed on each individual handling and using the tools and any missing tools are immediately noticed.

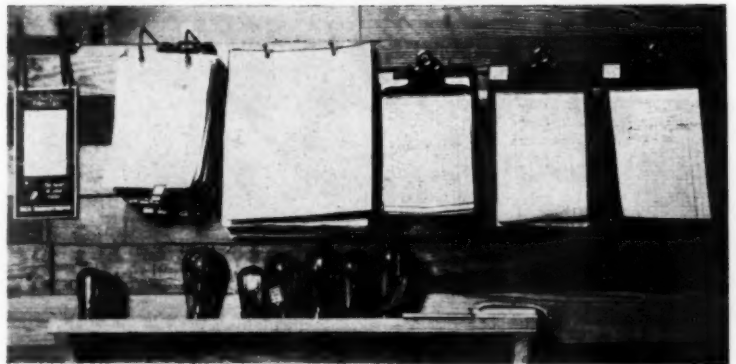
## KELSO BURNETT ELECTRIC CO.

To		1		DATE		TOOL TICKET									
To		* DEL TO JOB		JOB NO.		JOB NO.									
CONDUIT	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"					
BLACK															
WHITE															
Quan	Description	(No.)	V	Quan	Description	(No.)	V	Quan	Description	(No.)	V				
CONDUIT TOOLS				TOOL BOXES				SOLDERING				METAL MOLDING			
Small Stock				Small				Plumber Furnace				Shear			
1/2"-1 1/2"-1 3/4"				Large				Elec. Solder Iron				Wiremold			
Die and Guide				Portable Office				Acetyl. Solder Torch				Bandier			
1/2"-1 1/2"-1 3/4"				Port. Store Rm.											
Die and Guide															
For Above Stock															
1/2"-1 1/2"-1 3/4"															
Die and Guide															
Tol. Beaver 1"-2"				LADDERS				CUTTING-DRILLING				BLOCKS & TACKLE			
Ratchet 2 1/2"-4"				Specify Size				Electric Drill				Handline			
Ratchet 2 1/2"-6"								Twist Drill				Rope			
Benches—Small								Hand Star Drill				1/2"-1 1/2"			
Benches—Large				20 ft. Top Exten.				And Holder				Blocks			
Benches—Plank				20 ft. Bot'm Exten.				Elec. Hammer				Single			
Hickies—Small				Locks				A.C.—D.C.				Double			
Hickies—Large				Chains				Jack Hammer				Triple			
Oil Can				KNOCKOUT CUTTING				Star Drills				Scratch			
Auto C't'r 2 1/2"-4"				#1 Nischan 1"-1 1/2"				Specify Size				Tie Rope			
2 1/2"-6"				#2 Nischan 1 1/2"-2 1/2"											
Toledo Crabs				#3 Nischan 3"-4"				D. C. Converter				PAINTING			
Power Drive				Circular Saw				Acetylene Torch				Cans			
A.C. D.C.				Jiffy Cutter				For Cutting/Welding				Specify Size			
Universal				WIRE PULLING				Sledge							
Est. for Power Drive				Fish Tape				Bull Point				Brushes 1 1/2"			
Pr. Thd M'ch 1"-2"				Small				Heavy Hammer				Brushes 3"			
Small Large				Medium				Long Handle Ax							
Wrenches				Large				Whitney Punch				SPECIAL			
Chain Tongs				2-Spool Reel				Small—Large				Drop Cloth			
20"-30"				Winch				Bolt Cutters				Extension Cord			
File 1/2 Rd Large				1 Jacks—Bar				Tin Snips				Water Level			
Pipe Bend M'ch #1				1 Wire—Iron Tie				Hand Shears				Acid Pump			
No. 2				1 Rope—Tie				Cold Chisel				Resist 600V			
Large Pipe Vice				1 Rope 1/2" 100 Ft				Wood Chisel				Auto Tfr			
Pipe Pusher				1 Black Switch				Plumber Chisel				3 R.V.A. 220-110V			
R'm'r Lge 1"-2"				1 Corner Along				Lath Hatchet				A. J. Set			
R'm'r R'ch 1"-2 1/2"				1 Cable Grip								Fixture Stock			
				1 Split Link								16" to 15"			
REMARKS												WIREMAN			
1 SHIPPED COMPLETE												DRIVER			
WITH WRENCH												LOADED BY			
* COMPLETE WITH EXT															
CORD AND EMERY WHEEL															

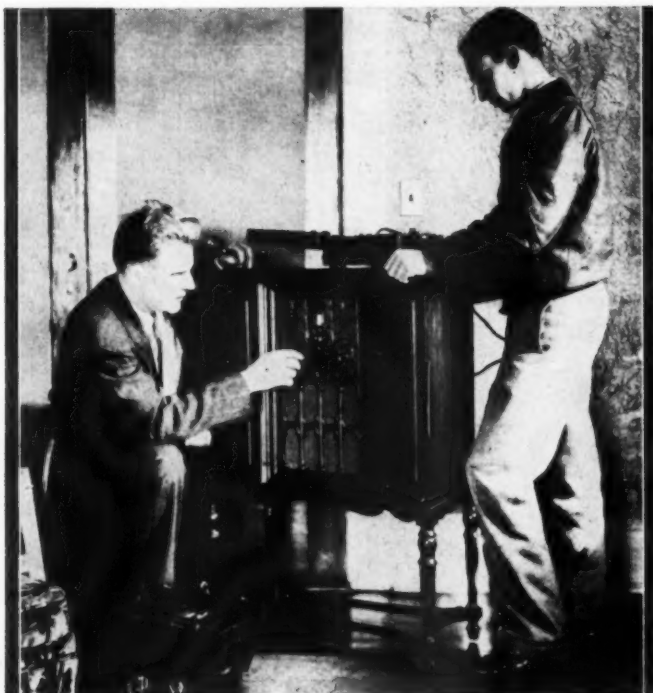




This fully equipped shop is in charge of W. C. Garner, radio engineer, formerly assigned to the General Electric Co.'s laboratory, with two assistants whose main work is installation. Here the most exhaustive tests are made, followed by repairs when necessary. In addition, trade-in and obsolete sets are put in new cabinets and otherwise modernized. The work of this department includes service on all makes of sets, the installation and correction of aerials and installing of public address systems.



The five files shown hanging in the shop furnish a complete story on every job, finished or in process. First, on the left, is the Work Ticket, listing everything used and accomplished by the outside men. Next is the Dray Ticket, proving the delivery and an aid in checking inventories. Then comes the Finished Job Tickets for ready reference in case of doubt as to what was done. The last two are Jobs To Be Done, one file for inside repairs and the last for all outside repairs or installations. In addition to all these, a separate file is maintained wherein the tickets show all technical tests and their results. These records positively eliminate guesswork.



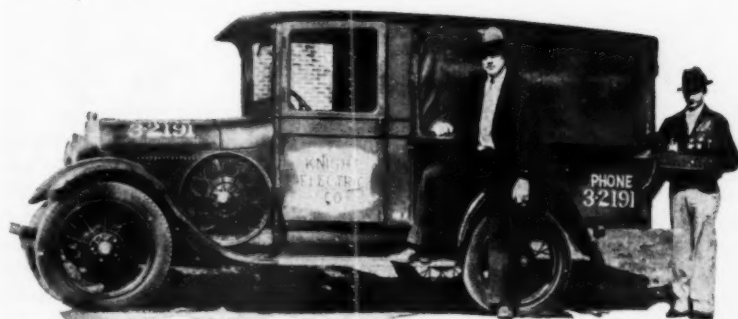
By means of portable testing apparatus, plus technical knowledge, the source of trouble can, in most cases, be discovered and corrections made in the home of the customer which affords the opportunity to recommend and sell on the spot the service or material necessary.

*Electrical Contracting, August, 1931*

# Radio Service Big Way

A special truck maintained for the use of the engineer and his assistants provides ample room and speedy transportation for all the necessary testing apparatus, tools and material, including a complete aerial outfit, in case a sale is made on the trip.

The solicitation and performance of radio servicing is becoming an important branch of the contracting industry which can be built up to large volume and definite profits by specialization and intensive sales efforts



The installation of aerials is a large and respected part of the radio service volume. Sales are made, not on price, but on the basis of improving reception, quality material and permanency. Every precaution is taken to insure good work and installations are guaranteed.



While on the way to a job, the service men scrutinize all housetops for aerial prospects that look good for a sale. Likely addresses are "spotted" for a call on the way back. They also call on nearby prospects selected from a list of about 700 owners of sets not sold by the firm. In this picture Mr. Garner is selling a permanent aerial to replace a temporary one which was not doing justice to the set.






---

*The 3rd John Kuhlemeyer*  
BUSINESS ANALYSIS

---

# SAY! *What's*

**T**HE electrical contractor may be likened to a general because every job he gets is just another battle. He is required to size up the situation and say beforehand what it will cost to complete the work. If he underestimates the amount, he loses, as the general loses if he fails to employ sufficient men and equipment. And the hidden enemies which lie in wait to attack the contractor's profit are those unfortunate and ever-present leaks, delays and losses which cannot be anticipated.

One of these enemies is "trouble-labor"—things the contractor must pay his men to correct, but for which he receives no additional compensation. Some of them are bound to be the fault of his mechanics or himself. Others are caused by careless, dishonest or ignorant customers, while still others are traced to the errors of other trades.

Undoubtedly the chief cause of trouble-labor is the average customer's unfamiliarity with the working of his electrical installation. All he knows is that the contractor is responsible for making everything work smoothly.

Suppose a mechanic is hanging the dining-room fixture as the finishing touch to a newly wired home. He asks the lady how far above the dinner-table she wants the unit, and follows her instructions exactly right before her eyes. Apparently everything is fine, but, maybe a week later, she calls up and says it doesn't seem quite right, it should be a bit higher. A man is sent out to make the correction, and, although the customer is to blame, no charge is made; it is the custom to throw such service into the balance for good-will. But the contractor pays for the call and the work.

Many times a 'phone order is received for an elec-

trician to make repairs or put in additional wiring. The customer says: "Come around tomorrow at two o'clock in the afternoon." When the wireman arrives the next day the house is locked up. Probably he tries again later, but the lady is still out. The next morning he calls her on the 'phone and she insists she was "home all day," but a little cross-examining makes her remember that she did go to a neighbor's house "for just a few minutes." Again the contractor is out money, but chooses to absorb the loss.

After a new residence job is completed, many little things bob up which require extra service without charge. Perhaps a switch sticks, or a piece of glass-ware is broken. Sometimes a plate will disappear after it is removed for kalsomining. No one knows where it went, and the contractor is the goat. "The bell installed by your electrician won't work," 'phones another customer. Your man finds that some kids stole the wire before the house was occupied. This is a bad one, because it takes time to locate the trouble.

A house is wired and the folks move in. A few days later they demand that the contractor come and fix the cellar light, which won't burn. Investigation shows that they have blown a fuse. Now and then a workman calls to connect the ground and finds the waterpipe is not in place; another expensive call for the boss to laugh off. On a new residence job the wireman places a switch beside a doorway. When the door is hung it swings the opposite way to what the carpenter told the wireman and the switch is behind the door. The carpenter swears he told the electrician the truth about the door, but the latter is equally sure that he received the wrong information. To save argument the switch is moved at the electrical contractor's expense.

Even on repairs in the store, trouble-labor creeps in. A woman brings her iron to be fixed, but leaves the cord at home. Your man repairs the iron and collects



\$2.50. In a couple of days the owner is back with fire in her eyes because the thing won't heat up. This time she brings the cord and plug, which looks like it had been through a sausage-machine. Still she blames the man who fixed the iron and the cord is replaced free-of-charge.

Industrial work brings up many of these situations. For instance, the wiring in a new factory is completed and moving-in begins. All the work has been tested out O.K. Some one else has sold the motors and when these are installed a workman takes out the main fuses that were furnished, which happen to be 400 amp. and rather expensive. He puts them in his own kit, but when finished forgets to replace them. Consequently the machinery refuses to run and the plant men naturally get all excited. After calling the power company they are referred to the contractor and anyone knows the answer—he pays for new fuses.

Again, on a motor control job, a starter is installed which has a safety-catch. The first hint to

the contractor of trouble comes in the shape of a 'phone call to the effect that a big press will not start and that they are losing money. It develops that the plant man, in his efforts to start the press, has touched everything but the safety-catch.

It is Saturday evening on a newly wired farm and the indignant owner calls the contractor to inform him the lights do not burn. Of course, the man who is sent out is drawing double time every minute he is gone. When he arrives at the farm he learns that the public service company has not set the meter—a very good reason for no lights, but one not easily explained to a man who was looking forward to his "grand opening" over the week-end.

Another time the contractor receives an order from the power company to install a 7000-watt range away out in the country. Arriving on the job, the wireman discovers that the range is really of 13,000-watt capacity. Just another batch of telephoning, waiting and extra expense for the contractor.

These are all incidents from our own experience and undoubtedly they have been duplicated not once but many times in the work of thousands of contractors. And as they are only a small part of the things that are happening every day, it can be seen that trouble-labor is a factor to be recognized and faced the same as the regular, legitimate hours of work that are spent in putting in the job.

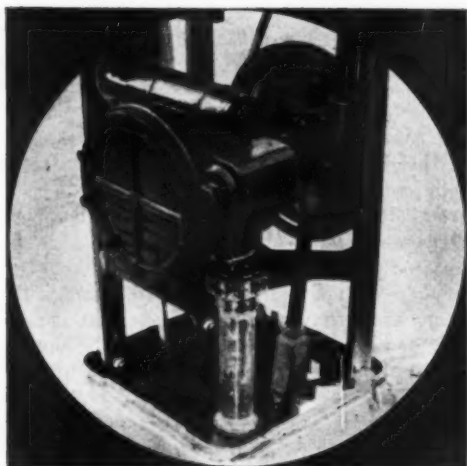
Since trouble-labor expense comes out of the profit, then the one sure way to whip it is to provide a reserve margin of profit sufficient to cover the unavoidable leaks. Then if precautions are taken to eliminate some of the avoidable errors of omission and commission, the contractor finds himself in a much better position to weather those losses he cannot anticipate.

In most cases the adding of 1 per cent to the overhead which is considered in making a bid will absorb the losses described. Where a store is maintained, it should be 2 percent. In isolated cases the percentage should be higher, but these are good average figures.

# *the Matter with Your Men?*

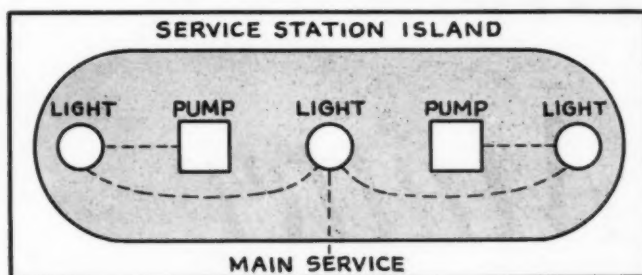


# Saving Time *in* Service Station Wiring

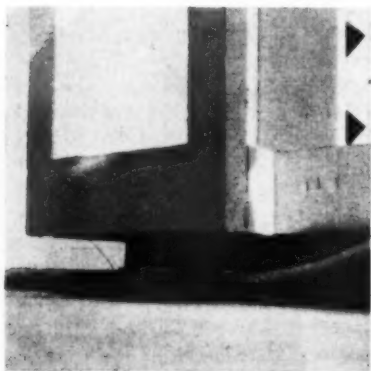


Accuracy in lining up the conduit to come directly beneath the pump permits fast work. This is done by using the plumber's pipe as a guide and allowing for the distance between fittings on the pump. Leaded joints must be used in the pump and work made vapor-proof.

Careful planning of the job for quality, economy and to meet inspection requirements has made a reputation as service station specialists for Yerkes & Lewis, Philadelphia Pa.



Solid vapor-proof boxes without locknuts or bushings are required in the pump. For that reason the main line is run to one lighting post as shown in the drawing. From there lines may go to outer island lights and pumps. By wiring according to the diagram, no T's are used in the pumps. Junctions are in the light posts and easily accessible.

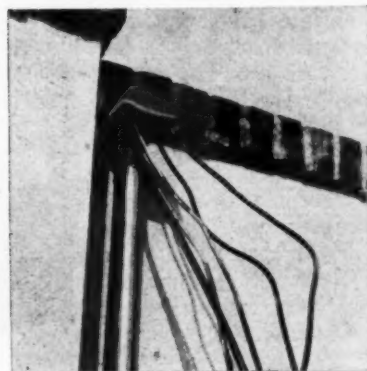


Conduit for fence lighting is not noticeable when run along the base and up the hollow fence post to the light. In this case the line runs to the lamp without a bend. If conduit is run behind the top of the fence cable must be used and extra drilling into the fence post is necessary. Moreover, such a job is not weather-proof.



Wire connectors are inexpensive and as no soldering is required considerable time is saved through their use.

Quality materials and oversize conduit mean a saving for the contractor in the long run. They give the customer a better job and make pulling wire easier.



*Electrical Contracting, August, 1931*

# Contracting Industry Offered Modified Rules

Federal Trade Commission substitutes innocuous rules for those developed by the industry and adopted at Kansas City—To request rehearing

## *Federal Trade Commission Substitute Rules*

### GROUP I

#### *Rule 1.*

*The Commission substituted and approved the following rule for Resolution 1 as adopted by the industry:*

Maliciously inducing or attempting to induce the breach of existing contracts between competitors and their customers by any false or deceptive means whatsoever, or interfering with or obstructing the performance of any such contractual duties or services by any such means, with the purpose and effect of unduly hampering, injuring, or embarrassing competitors in their businesses, is an unfair trade practice.

#### *Rule 2.*

*The Commission substituted and approved the following rule for Resolution 2 as adopted by the industry:*

Maliciously enticing away the employees of competitors with the purpose and effect of unduly hampering, injuring, or embarrassing competitors in their businesses is an unfair trade practice.

#### *Rule 3.*

*The Commission substituted and approved the following rule for Resolution 3 as adopted by the industry:*

The defamation of competitors by falsely imputing to them dishonorable conduct, inability to perform contracts, questionable credit standing, or by other false representations, or the false disparagement of the grade or quality of their goods, with the tendency and capacity to mislead or deceive purchasers or prospective purchasers and the tendency to injuriously affect the business of such competitors, is an unfair trade practice.

#### *Rule 4.*

*The Commission substituted and approved the following rule for Resolution 4 as adopted by the industry:*

The selling of goods below cost with the intent and with the effect of injuring a competitor and where the effect may be to substantially lessen competition or tend to create a monopoly or to unreasonably restrain trade, is an unfair trade practice.

#### *Rule 5.*

*The Commission substituted and approved the following rule for Resolution 5 as adopted by the industry:*

The practice of shipping or delivering products which do not conform to the samples submitted or representations made prior to securing the orders, without the consent of the purchasers to such substitutions, and with the effect of deceiving or misleading purchasers and the tendency to injuriously affect the business of competitors, is an unfair trade practice.

## *Industry Resolutions for Which Substitution was Made*

### GROUP I

#### *Resolution 1.*

The wilful interference by any person, firm or corporation with an accepted firm order or other form of contract between a seller and a purchaser, or knowingly and wilfully to submit a bid after a contract has been awarded to a competitor, with the purpose and effect of inducing or attempting to induce a breach of the contract between a competitor and his customer and appropriate in whole or in part the patronage or business of a competitor, where the effect is to substantially lessen competition, is an unfair trade practice.

#### *Resolution 2.*

Interference with a competitor's business through the enticement of his employees from his employment, rendering it difficult or embarrassing for him to fill their places, is an unfair trade practice.

#### *Resolution 3.*

Dissemination of false and misleading information relative to a competitor's business integrity, his ability to carry out his contracts, his credit standing, or the quality or reliability of his electrical materials, is an unfair trade practice.

#### *Resolution 4.*

The furnishing or selling of materials and services at or below cost for the purpose of injuring a competitor and with the effect of substantially lessening competition is an unfair trade practice.

#### *Resolution 5.*

Fraudulently substituting inferior or unreliable materials in electrical installations for good materials specified in the contract is an unfair trade practice.

Commission Substitutions (Cont.)

Rule 6.

*The Commission substituted and approved the following rule for Resolution 6 as adopted by the industry:*

The practice of using materials or methods of installation not in accordance with the applicable Governmental laws, rules and regulations obtaining in the territory affected, with the tendency to injuriously affect the business of competitors, is an unfair trade practice.

Rule 7.

*The Commission approved Resolution 7 as adopted by the industry, reading:*

The secret payment or allowance of rebates, refunds, commissions, or unearned discounts, whether in the form of money or otherwise or secretly extending to certain purchasers special services or privileges, not extended to all purchasers under like terms and conditions, with the intent and with the effect of injuring a competitor and where the effect may be to substantially lessen competition or tend to create a monopoly or to unreasonably restrain trade, is an unfair trade practice.

Rule 8.

*The Commission substituted and approved the following rule for Resolution "A" as adopted by the industry:*

Deviation from the established standards of the industry by any deceptive or false means or device with the effect of misleading or deceiving purchasers or prospective purchasers and the tendency to injuriously affect the business of competitors is an unfair trade practice.

Rule 9.

*The Commission substituted and approved the following rule for Resolution "E" as adopted by the industry:*

Securing information from competitors concerning their businesses by false or misleading statements or representations or by false impersonations of one in authority and the wrongful use thereof to unduly hinder or stifle the competition of such competitors is an unfair trade practice.

Rule 10.

*The Commission substituted and approved the following rule for Resolution "J" as adopted by the industry:*

For any person, firm, or corporation knowingly to aid or abet another in the use of unfair trade practices is an unfair trade practice.

GROUP II

Rule A.

*The Commission substituted and accepted the following for Resolution "K" as adopted by the industry:*

(a) The industry approves the practice of each individual member of the industry independently publishing and circulating to the purchasing trade its own price lists.

(b) The industry approves the practice of making the terms of sale a part of all published price schedules.

Rule B.

*The Commission substituted and accepted the following for Resolution "M" as adopted by the industry:*

The industry hereby records its approval of the definition of a qualified wholesale distributor to be one whose principal business is selling to the retail distributor.

Rule C.

*The Commission substituted and accepted the following for Resolution "N" as adopted by the industry:*

It is the judgment of the industry that each member should install a proper and accurate method for determining his cost.

Industry Resolutions (Cont.)

Resolution 6.

To use materials or methods of installation not in accordance with the applicable governmental laws, rules and regulations obtaining in the territory affected is an unfair trade practice.

GROUP II

Resolution A.

In electrical installations in territories where no governmental laws, rules or regulations prevail the National Electrical Code, approved by the American Standards Association, provides the proper minimum regulations.

Resolution E.

Surreptitiously obtaining information relative to competitors' bids in the preparation of one's own bid is condemned by the industry.

Resolution J.

For any person, firm or corporation to aid or abet another engaged in unfair trade practices is condemned by the industry.

Resolution K.

(a) The industry approves the practice of each individual member of the industry independently publishing and circulating to the purchasing trade his own price lists.

(b) The industry hereby records its approval of the practice of making the terms of sale a part of all published price schedules.

Resolution M.

The industry hereby records its approval of the definition of a qualified wholesale distributor to be one whose principal business is selling to the retail distributor, carries a well selected stock of merchandise, buys in suitable quantities, warehouses a reserve stock for retailers within a radius of economical distribution and convenience of service, resells in proper units to the retailer as economically as possible, assumes the credit risk and such other obligations as are incident to the transportation, warehousing and distribution of the products of the industry.

A. W.

Resolution N.

It is the judgment of this industry that an accurate knowledge of cost is indispensable to intelligent and fair competition, and the adoption of accurate methods of cost-finding and estimating is recommended by the industry.



Commission Substitutions (Cont.)

*Rule D.*

*The Commission substituted and accepted the following for Resolution "O" as adopted by the industry:*

The industry approves the practice of handling disputes in a fair and reasonable manner, coupled with a spirit of moderation and good will, and every effort should be made by the disputants themselves to arrive at an agreement. If unable to do so they should agree, if possible, upon arbitration under some one of the prevailing codes.

*Rule E.*

*The Commission substituted and accepted the following for Resolution "P" as adopted by the industry:*

A Committee on Trade Practices is hereby created to cooperate with the Federal Trade Commission and to perform such acts as may be proper to put these rules into effect.

Industry Resolutions (Cont.)

*Resolution O.*

The industry approves the practice of handling disputes in a fair and reasonable manner, coupled with a spirit of moderation and good will, and every effort should be made by the disputants themselves to arrive at an agreement. If unable to do so, arbitration should be agreed upon.

*Resolution P.*

A Committee on Trade Practices is hereby created and empowered to make complaints concerning alleged violations, to co-operate with the Federal Trade Commission, and generally to perform such other acts as may be reasonably necessary and proper to put these resolutions into effect and accomplish the objects and purposes of this conference.

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*The Commission declined to approve or accept the following resolutions adopted by the industry:*

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*Resolution B.*

The inducing or attempting to induce an architect, owner or builder to reveal to any bidder on a competitive job information relative to bids already received, which information would give the favored bidder an advantage in the preparation of his own bid, is condemned by the industry.

*Resolution C.*

To induce or attempt to induce an architect, owner or builder to reveal to a bidder the amounts and conditions of any bid received on a competitive job, with a view of giving the favored concern an opportunity to meet or cut below the lowest bid, whether the favored concern was one of the original bidders or not, is condemned by the industry.

*Resolution D.*

To mislead or deceive any bidder as to the amounts and conditions of other bids or with any other false information for the purpose of inducing him to cut his own is condemned by the industry.

*Resolution F.*

The industry approves of the "one-bid" policy and condemns fake or fictitious bids made for the purpose of deceiving competitors and securing undue advantage. If plans and specifications are changed and new bids called for after the original bids have been submitted and opened, the same fairness should obtain as with the original bid.

*Resolution G.*

It is a frequent practice for electrical contractors to submit bids to general contractors who in turn use the lowest acceptable price from the several trades in making up their bids on a general contract. Many general contractors after securing the general contract then reopen the bidding for the same operation, commonly known as "shopping," which practice involves deception and misrepresentation lowering

the standard and quality of electrical installations and building construction. Such practice is condemned by the industry.

*Resolution H.*

The industry favors the adoption of the following rules for calling for bids:

- (a) In all cases where competitive bids are requested, no one should be invited to bid to whom the contract would not be willingly awarded in case his bid is the most acceptable in itself.
- (b) Where accurate estimates are desired for information only, a reasonable fee or fees should be paid to the parties preparing them.
- (c) Plans and specifications should be sufficiently complete to enable competent bidders to estimate accurately the amount of material and labor required.
- (d) Invited bidders, provided they actually submit bids, should not be required to pay for the use of plans and specifications.
- (e) A reasonable time should be allowed for preparation of estimates.

*Resolution I.*

Where a bidder requests an interpretation of some feature of the specifications from the buyer or his representative before submitting his bid, which would materially affect the cost of the work, the same information should be submitted to all other bidders by the buyer or his representative.

*Resolution L.*

Recognizing the expense of handling, selling and delivering electrical products by wholesalers is appreciably higher for small-quantity than for large-quantity lots, the industry records its approval of the principle of a reasonable differential in prices in the several types and characters of sale.

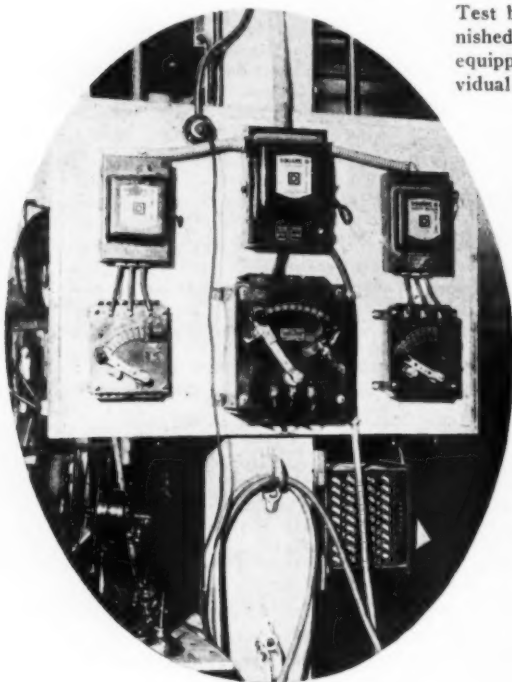


# ADEQUATE MOTOR

Testing equipment in the motor repair shop is essential to prompt and accurate trouble analysis; economic shop operation and quality work

By J. ROLAND STOLZENBACH

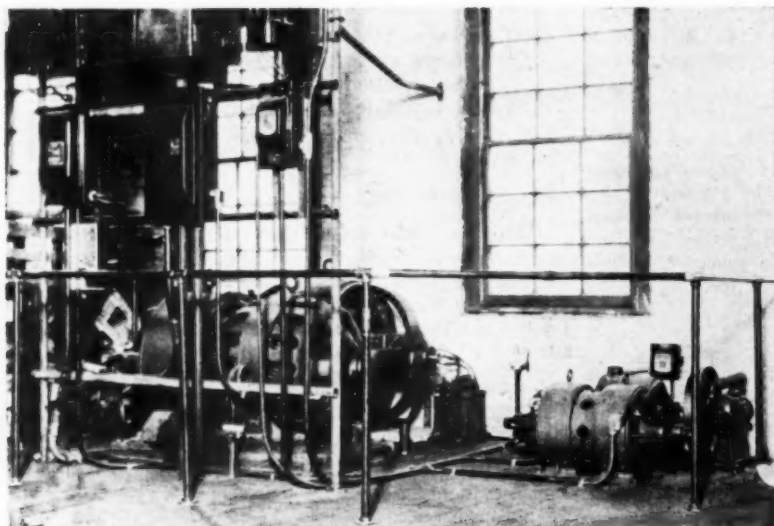
*President  
Roland Electric Co.,  
Baltimore, Md.*



Test boards are located in the center of the shop and furnished with long flexible cables. This is the d. c. test board equipped with starters, thus eliminating the use of an individual starting box for each test. As the shop is located in a d. c. district, ample d. c. power is available.



The a.c. test board located back of the d.c. board, thus making it convenient to test any type of equipment. Power is furnished from motor generator sets and a rotary converter.

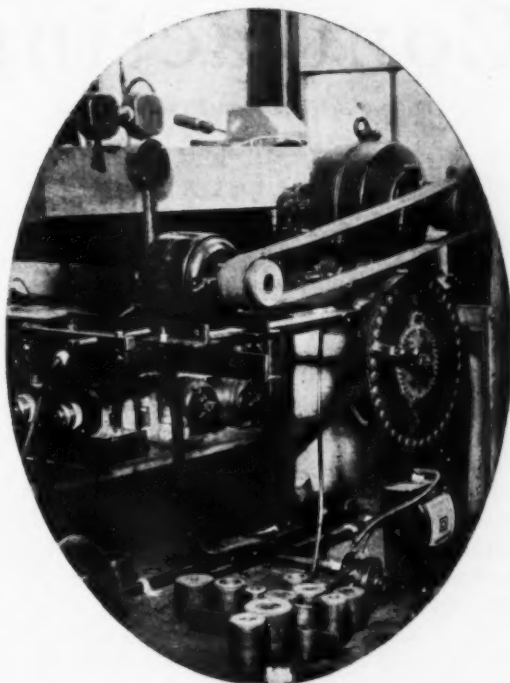
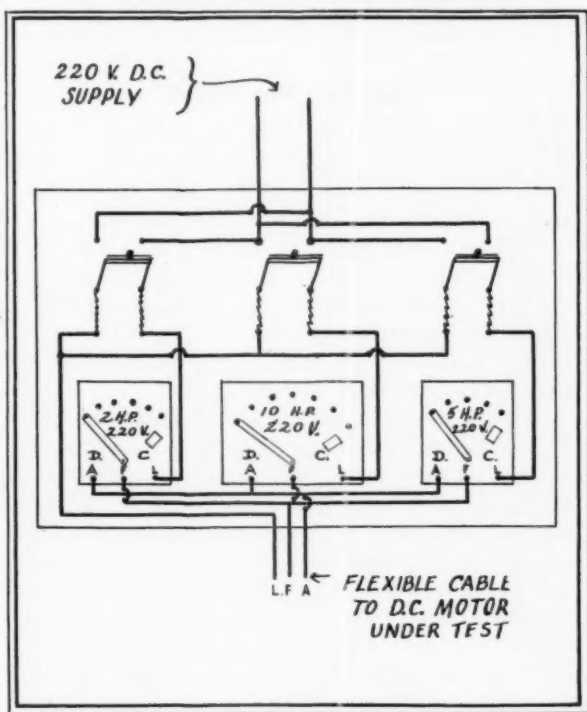


Motor generator sets and rotary converter furnishing a.c. power are located in an out-of-the-way place on the second floor and automatically controlled from the main shop below. The various voltages available from this outfit are: 110 v. 60 cycle single-phase; 220 and 440 v. 60 cycle 3-phase and 110, 220, and 440 v. 25 cycle single-phase and 3-phase.

*Electrical Contracting, August, 1931*

# TESTING EQUIPMENT

Diagram of d.c. test board hookup.



Testing equipment for fractional horsepower motors is located in that department on the second floor.



Each work-bench is equipped with a small 110-220 v. lamp controlled test board.

Electrical Contracting, August, 1931

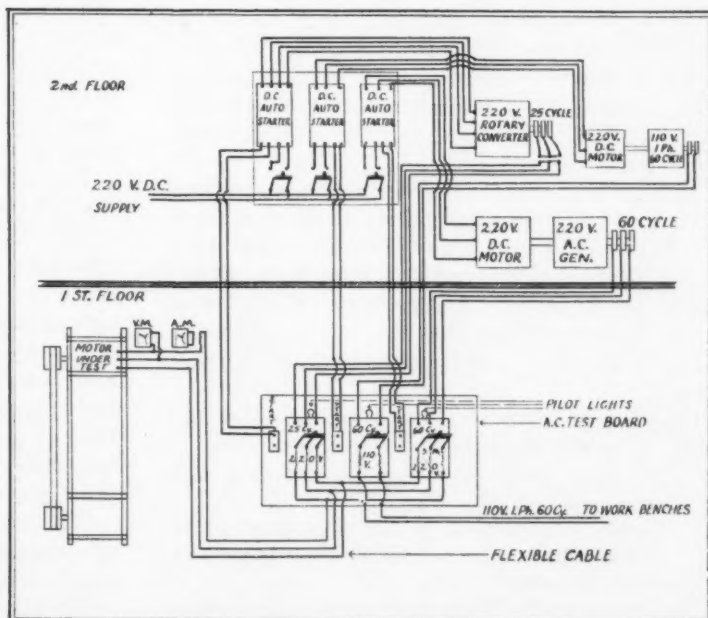


Diagram of a.c. generating and converting equipment and test apparatus.

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# Electrical Contracting

*With which is incorporated The Electragist*

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S. B. WILLIAMS, Editor

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## Temporary Wiring

IS there any good reason why temporary wiring cannot be neat and tidy? The careless way with which conductors are strung about a building under construction makes one wonder if this is not a rather wasteful as well as dangerous practice.

ELECTRICAL CONTRACTING would be glad to hear the views of its readers on this subject. Can temporary wiring be done in a neat manner and is it any more expensive in the long run?

---

## Standard Hook-Up Needed

THE present scrambled policy on range wiring puts us very much in mind of the old nursery jingle—

*Pease-porridge hot,  
Pease-porridge cold,  
Pease-porridge in the pot nine days old.*

Some power companies insist on a super-code range wiring standard, some insist on a sub-standard hook-up, while others just don't care.

When we were studying range wiring costs last year it was clearly evident that a standard hook-up was needed. We had hoped that the joint range wiring committee might produce such a standard. We do not recall, however, that this committee has ever made a report of activities or accomplishments.

Our suggestion is that somebody set up a set of three standards as follows:

1. The most simple and inexpensive hook-up that will comply with the Code.
2. An intermediate hook-up for those cities where cost is still a factor but where the minimum is not good enough.
3. The best kind of hook-up for those places where only the best is permitted.

Everybody could get behind such a set of

standards and push them. With such standards available we doubt if many central stations will care to demand any contrary hook-ups.

This should not be a difficult job. Perhaps the Electragists' Wiring Standards Committee could offer such standards.

---

## Beautiful But Dumb

ELSEWHERE in this issue will be found the Trade Practice Rules which the Federal Trade Commission has submitted to the Electrical Contracting Industry.

Instead of accepting these rules the Industry has decided to request a rehearing. As the Commission will not reassemble from its summer recess until September 15 it will probably be well into the fall before any further action can be taken.

In the preparation of the Trade Practice Resolutions which the industry Conference at the Kansas City March meeting adopted and submitted to the Commission for approval, not only was a tremendous amount of time consumed, but the advice and counsel of attorneys trained in Federal Trade Commission procedure was secured. Each resolution was clear and it took no reading between the lines to know what was meant or what evil practice was being condemned.

Furthermore, the Commission's representative who conducted the Kansas City hearing apparently found no serious objections to any of the resolutions, either in their wording or subject matter, because he complimented the conference on the manner in which the proceedings were handled and expedited.

It was, therefore, somewhat of a shock to learn that only one resolution was accepted by the Commission as presented and except for rules that were rejected, all other rules were virtually entirely rewritten by the Commission. In the rewriting the Commission has robbed the rules of all their force and removed from them all of the language that clearly showed them to cover the electrical contracting industry. As they stand the rules might apply equally well to the morticians.

The rules are beautifully written but so unexpressive. They put one in mind of the movie queen—"beautiful but dumb".

Furthermore, it is doubtful if anyone would ever clearly understand the application of these rules to the electrical con-



tracting industry. Certainly it would be extremely difficult ever to secure a "cease and desist order" on the strength of the rules as written. To show "malicious intent" is virtually impossible.

In the several conferences between the Commission and the industry committee it was emphasized that the Commission wanted to help the industry to curb unfair practice in competition. It is apparent, however, that between what the Commission may want to do and what it believes it can do there is a considerable gap. So long as the Commission has an inferiority complex this gap will not be closed.

These rules, it would appear, are entirely in accord with the Commission's recently announced plan for standardization of trade practice rules. That the entire Commission is not in accord with this policy became apparent with the news release of the views of Commissioner Humphrey who stated that this standardization of rules "is for the convenience of the Commission". Under the circumstances one wonders why an industry should go to all the bother of preparing rules. Why not address a letter to the Commission and receive in return a beautifully bound pamphlet containing all the rules. It does not make any difference that an industry may want certain kinds of rules. The Commission can't be bothered with studying an industry's problems. It's much easier to have a standard set of rules to pass out to all who may apply.

However, even if the desired help from the government did not come, the industry is richer by the unofficial code of fair practice adopted at Kansas City. At least we now have a common understanding of what's right and what's wrong.

### The New Outlet

CONSIDERABLE activity is noticed on the part of wiring device manufacturers in the development of new products. We were particularly impressed, however, with the new two-circuit duplex outlet. After it has been announced one wonders why it had not been thought of a long time ago.

With a number of portable lamps in a room it is much easier to have them on a switched circuit; but when the vacuum cleaner or other appliances are to be used during the daytime it is a nuisance to go around pulling lamp switches. The two-cir-

cuit outlet, one side switched and the other hot, does away with this problem.

This also, by the way, provides another opportunity for contractors to modernize existing house wiring.

### An Investment

THE number of Electragist Chapters is well over one hundred and growing very fast. Why?

In a great many cities these chapters have kept the industry from going to pieces during the depression period. How?

There is a number of new opportunities for electrical contractors, opportunities that can be pushed at a profit without the fear of unscrupulous competition. What are they?

Economies of a new kind are being practiced by contractors — economies that are keeping things together. What are they?

The answers will be given at the thirty-first annual convention of the Association of Electragists to be held at the Arlington Hotel, Hot Springs, Ark., October 5 to 8.

Aside from the fact that this spot is in a national park—a playground for the family—an ideal place for a vacation—the program this year will be devoted almost entirely to the problem of improving the organized contractors' business despite the depression.

In past years the conventions have largely featured broad national policies, but this year the program will be confined to the problems of the average local electrical contractor. Unlike previous meetings there will be only four or five addresses, the remainder of the business program being given over to a discussion of contractor's problems by representatives of the one hundred and five Electragist chapters. It is also expected to have a standard form of local licensing ordinance ready for presentation to the delegates.

As a business proposition—let alone the vacation—the cost of attending this convention should prove a profitable investment.

Contractors who stay at home will save the cost of the trip, but remain devoid of ideas that will help them out of their troubles.

Those who invest in the convention will return home with fresh courage and new ideas—ideas that will help them to scramble out of their present business difficulties long before their stay-at-home competitors.

# Code Chats

*A Monthly Discussion of Wiring Practice and Questions of Interpretation, Presented with a View Toward Encouraging a Better Understanding of the National Electrical Code - - -*

Conducted by F. N. M. SQUIRES

*Assistant Chief Inspector, N. Y. Board of Fire Underwriters*

## Garage Wiring

A very interesting letter has been received. It reads about as follows:

"Has there been any change in the Code since the publishing of the 1930 Code?

"A new garage is being built here in the local business district and it is wired with open wiring on ceiling joists and between same, but from the overhead wiring they have used non-metallic sheathed cable down the walls to about 3½ feet from the floor. These drops are about 16 feet apart around the walls with outlet boxes at the lower ends but where they are spliced at the top onto the open wiring no fitting of any kind has been used, simply fanning the ends of the non-metallic cable out and splicing it onto the open wiring."

No wonder our correspondent asked if the Code had been changed! It is almost surprising that he did not ask whether or not all Code rules had been repealed, revoked or cancelled.

It is true that the 1930 Code has been revised but the provisions of the 1931 Code have not become effective as this new Code is now in the printer's hands and so, of course, has not as yet been published. But no such startling changes have been made in the Code as might be indicated by the above installation.

Evidently the party (and let's not call him an electrical contractor or electrician) who installed this job has never heard of an electrical code nor been aware of any rules. Also it is quite certain that there is no inspection in vogue in the "local business district" referred to.

The distance of 16 feet between outlets shows that the garage has a

floor area sufficient to accommodate more than two vehicles and therefore the second sentence of rule 3202 (a) would not apply, hence the first sentence of 3202 (a) would apply and the only methods of wiring recognized by the National Electrical Code are conduit work, surface metal raceways, armored cable, or electric metallic tubing.

Another serious violation is that the outlet boxes are located only 3½ feet above the floor.

Suppose this garage was filled up with expensive cars and a fire originating from this defective work occurred causing a total loss of the building and contents and supposing the insurance company disclaimed liability because of the defective work and therefore refused to pay the loss, who would lose? And supposing a personal injury or fatality occurred during such a fire who would be responsible? Would it be hard to prove negligence, or maybe criminal negligence?

## Service Equipment and Grounding

A correspondent writes, with regard to "System grounding conductor":

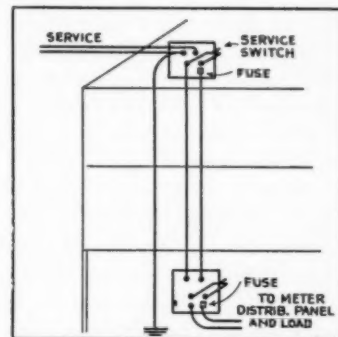
1. Article 4, Section 404—a, second sentence. Permits service conductors in conduit within a frame building wall provided the conductors are protected and controlled by fuses and switch.

2. Article 9, Section 907—a, first sentence. States that the grounding conductor "shall be without joint or splice."

3. Article 9, Section 903—d, first sentence. Is well understood and quite explicate where the service con-

ductors are run on the exterior of the building.

In the sketch it will be seen that the first device is merely an emergency switch and fuse protection for the service conductors, placed in the attic of the building. The second switch may be termed the "Service" switch because its location is in the cellar and adjacent to the meter and distributing devices and would be the point at which the "wiring is put in use" and the more familiar point at which the current can be cut off.



A two wire service is shown as a matter of convenience.

Question:

Is it necessary to run three wires, as shown in sketch, one of which is a through grounding conductor or may this be two wires only to the second switch as located in the cellar?

At what point in such an installation is it considered that the wiring is "put in use"?

Do the words "joint or splice" apply to a terminal block for multiple connections in the grounding system and, if the grounding conductor were connected to such a terminal block and a second contact used to continue the line to ground would this be considered a violation of No. 2?

*Electrical Contracting, August, 1931*

# ARROW SCREWLESS HEATER PLUGS

**No screws to lose or loosen**

**ALTERNATE** heating and cooling, twisting and pulling loosens holding screws in ordinary plugs so they soon fall apart—useless. These new plugs stay together and stay **USABLE**.

**NO HOLDING SCREWS** to loosen and lose out of **ARROW Screwless Heater Plugs**. Plug sections are held together by **SPRING CLIPS**—self-adjusting to temperature changes, yanks and twists.

**EASIER TO WIRE** than screw-held plugs. To take apart, simply slip off spring clip at bottom and collar spring at top. **Convenient!**

**NEWLY DESIGNED** of lustrous **BAKELITE**, modern, attractive, appealing to your customers. Ask for catalog data-sheet—fully descriptive.

Above: Screwless Switch Plug No. 7768. Made extra serviceable by patented switch mechanism, operating with exceptionally long 3-point break, with current-carrying and current-breaking capacity away in excess of normal needs. . .

At right: Screwless Plug No. 7760 without switch. Having the same features of spring clip fastening as No. 7768.

At left: **CORD SETS** with the new screwless plugs move fast across Dealers' counters. Assembled with improved plug cap and Rockbestos Heater Cord. The plugs sell the sets!

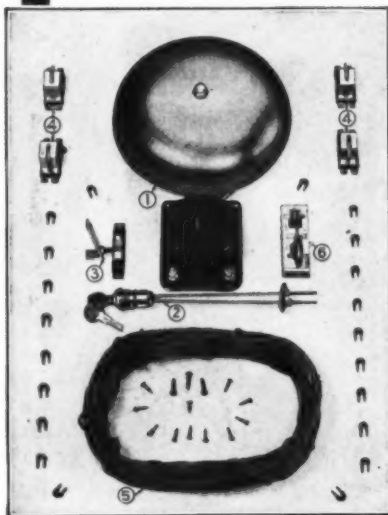
## ARROW ELECTRIC DIVISION

THE ARROW - HART & HEGEMAN ELECTRIC CO.

HARTFORD, CONN.



## Announcing.



### Low Priced BURGLAR ALARM

There is a great demand for a good low-priced burglar alarm and especially now!

First complete burglar alarm to be offered at a reasonable price. Manufactured parts complete. Not a hand-made outfit. For use in stores, filling stations, etc. Has all parts of the high-priced alarms and is easy to install.

**List price Complete  
Only \$10<sup>00</sup>  
Fully Guaranteed**

The No. 101 Liberty Burglar Alarm Outfit is furnished complete with window and door trips, door lock switch, bell wire and even the screws and staples for installing the parts.

Don't overlook this opportunity to increase your business.

# LIBERTY INE

**CLIP AND MAIL TODAY  
THE LIBERTY BELL MFG. CO.  
Minerva, Ohio**

Gentlemen: Kindly send me complete information about your new low priced Burglar Alarm Outfit.

Name .....  
Address .....  
City..... State.....

Answer:

The first device is the service switch and cutout as required by rule 405 (b), and the switch in the cellar is an emergency switch placed there for convenience. Of course, it is realized that the switch in the cellar could probably be more readily and more quickly reached in case of emergency but the one in the attic is the one required by the Code.

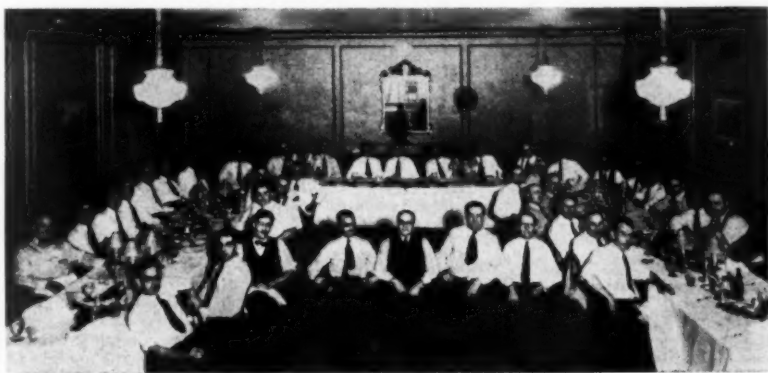
The phrase quoted from the first sentence of rule 903 (d) "before the wiring is put in use," is a reference to a time rather than to a "point" or place or position. It means that the neutral (or wire to be grounded) shall be grounded at a time previous to the time at which the wiring is put into use. This is to insure that when the wiring is energized the neutral will already have been connected to ground. It is necessary to run three wires from the service switch in the attic down to the cellar, that is, two circuit (or feed) wires and one grounding conductor. There are several reasons or several Code rules involved in this point. For instance, a two pole service switch may be used, but the grounding conductor must not be broken or connected through a switch. Again, the grounding conductor must be at least a No. 8 wire while the feed wire may possibly be a smaller wire. (The service wires from outside to the service switch in the attic must be at least No. 8, as required by rule 404 [b].)

A terminal or connection block for multiple connections such as is being supplied today with or on cutout bases should not be considered as violating rule 907 (a) as this device is not a joint or splice within the meaning of the rule just mentioned.

### What Size Conduit for Three No. 6 Wires?

"I have received your book of Practical Answers to 117 Puzzling Code Questions and turned to page 29 on 'Stranded Wires in Conduit' to settle a question in the Code in regard to three No. 6 wires in 1-in. conduit. After reading the article I believe there has been some misprinting or wording in both the question and answer where it refers to the installing of six No. 6 wires in ¾-in. conduit. Will you kindly advise me in regard to this?"

The question as printed in the article was as given by our inquirer but through a stenographical error "six No. 6 wires in ¾-in. conduit" appeared in the answer. This, of course, should have read in the sentence referred to, three No. 6 wires in 1-in. conduit. And also we might mention here that where the conduit is more than 50 ft. long or where there are more than the equivalent of two quarter (90°) bends, no matter what the length of run, 1 ¼-in. conduit is to be used for three No. 6 wires.



**BUFFALO CONTRACTORS HEAR ABOUT OLD AND NEW WIRING:** Samuel S. Vineberg of the Electrical League of the Niagara Frontier, addressed the forty guests present at the dinner given by the Associated Electrical Contractors on June 29, on the subject of old and new wiring. With the aid of motion pictures, Mr. Vineberg discussed what business could be had while factories are partly idle. Other speakers were John W. Hooley, New York, president of the Electrical Contractors Association of New York City, and chairman of the board of insurance trustees of the electrical industry of New York; Arthur Bennett, vice-president of the I. B. E. W. and Edward R. Bosley. Above are the members of the association, officers and members of the executive committee of Local 41 of the I. B. E. W. and invited guests. Karr Parker, president of the association, presided at the dinner, which was followed by professional entertainment.



# Suggested RESALE PRICES *for* Wiring Supplies

The prices listed on the following pages are merely suggested resale prices for the commonly used standard supplies and equipment employed in electrical construction work. They are based on average current trade costs throughout the country, very largely obtained from jobbers' price sheets, and are also based on average overhead charges.

\* \* \*

Obviously, prices can be suggested only for the widely used products that are nationally distributed, and under no circumstances is this section intended to function as a directory of products or manufacturers.

\* \* \*

The publishers wish to again emphasize that these are merely *suggested* resale prices and while every effort is made to make them universally applicable and accurate we cannot guarantee them or assume any responsibility for errors.

\* \* \*

The prices appearing in this section will be completely revised each month as trade prices may change.

*These prices apply only to the United States.*

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# Suggested Resale Prices for Wiring Supplies

These are merely suggested resale prices for the commonly used products that appear regularly on jobber price lists. They are figured on generally accepted principles for computing resale prices and should cover average conditions but are not guaranteed. (See note on title page.)

## A-SUNDRIES

### ASBESTOS

Asbestos Millboard—Per Pound—30c.

### ANNUNCIATORS

#### House-Surface Type—Hand Reset

No. Drops	Ansonia Wood	Metal	Edwards No. 81 or Faraday No. 373	Edw. & Faraday White Enamel	P. & W. Competition	Automatic
2	\$ 8.25	\$11.00	\$ 9.85	\$13.00		
3	9.35	12.45	11.60	14.80		
4	10.90	13.60	13.05	16.40	\$13.20	\$16.50
5	12.65	14.85				
6	13.60	16.10	16.40	19.40	16.30	19.80
8	16.10	18.90	19.40	22.75	19.80	24.75
10	19.00	21.60	22.75	26.00	23.10	29.70
12	21.50	24.25	25.90	29.15	26.40	
15	27.00	30.25				
16			34.60	40.00	34.65	
20	35.90	40.85			42.90	
Extra Drops			2.25	3.00		

(All other Annunciators—Sell at List less 10%)

### COUCH

#### Electrical Reset

Number of Drops	Style D Face Type Wood Face	Price	Style F Flush Wood Face	Price	Style F Flush Metal Face	Price
4	DA 4	\$21.50	FA 4	\$44.80	FA 4	\$49.80
6	DA 6	26.50	FA 6	49.30	FA 6	55.00
8	DA 8	31.50	FA 8	53.80	FA 8	59.70
10	DA 10	36.50	FA 10	58.25	FA 10	64.70
12	DA 12	43.10	FA 12	64.25	FA 12	71.80
15	DA 15	50.50	FA 15	73.10	FA 15	81.50
16	DA 16	56.50				
20	DA 20	69.75	FA 20	88.15	FA 20	98.00

Add for each drop on any of above—\$4.15 per drop

### ADAPTORS & REDUCERS

#### For Sockets and Vases

	Arrow	Benj. Bryant	G. E.	Hubbl.	Price
Mogul to Medium	292	98	421	070	\$0.50
Medium to Candelabra	392		392	35099	.25
Candelabra to Miniature	391		391		.20
Medium to Intermediate	492		9691	2644	.25
Parallel Blades to Edison		1006		682	.35
Plug in Pull Socket	35024			35024	1.90
Vase Adapters, Benjamin No. S, 831, 832, 833—Each					2.00
Two-Light Vase Adapter, Brush Brass or Gun Metal, Complete with Pull Sockets, Plug, 6 feet Silk Cord—Rodale No. V-41					4.00

### EXTENSION ARMS FOR PULL SOCKETS

For Brass or Porcelain Sockets with 8"—10"—12" or 14" Reflec. \$0.65  
16"—18" or 20" .70

### ADJUSTERS

#### For Cords

	Price
Universal Cord Adjuster Standard Size No. 1417 3/4" Long	\$ .10
" " " Factory No. 1418 5/4" Long	.15
" " " Reinforced No. 1419 5/4" Long	.20
Bail Type No. 1403 & 5 for Type C Cord. 3/4 hole	.10
No. 4634 & 5 for Reinforced Cord. 3/4 hole	.12

### ACORNS & TASSELS

Luminous Acorns and Pendants for Pull Chain	\$0.30
Brass Acorns and Tassels for Pull Chain	.10
Brass Acorns Adjustable for Lined Cord	.10
Insulating Link for Pull Chain	.15

## BOXES, SWITCH

### SECTIONAL SWITCH BOXES

#### Single Gang—For Switch and Recep. for Old or New Work

	Depth	Without clamps	Black	Price Galvd.
For Loom	2, 2 1/4 or 2 3/4		\$ .18	\$ .20
For BX Cable	2 3/4 " 2 3/4 "	With	.16	.19
" " " " " "	2 3/4 " 2 3/4 "	With	.18	.20
For Rigid Conduit	1 1/4 to 2 3/4 "	Without	.19	.21
" " " " " "	3 & 3 1/2 "	Without	.32	.35
Spacers—For Spacer only deduct from any of above prices			.04	.05
Kruse Sw. Box Supports—G. E. No. 6610—16 1/4" Long				.20

#### With BRACKETS or EXTENDED EARS or LATH SUPPORTS For New Work

	Depth	Without clamps	Black	Price Galvd.
For Loom	2, 2 1/4 or 2 3/4 "		\$ .22	\$ .25
For BX Cable or Loom	2 3/4 " 2 3/4 "	With	.25	.28
" Rigid Conduit	2 to 2 3/4 "	With	.31	.34
" " " " " "	2 to 2 3/4 "	Without	.26	.29

### SOLID GANG BOXES—GALVANIZED

	2 Gang	3 Gang	4 Gang	5 Gang	6 Gang	7 Gang	8 Gang
Price of Box... \$	.85	\$1.20	\$1.60	\$2.15	\$4.15	\$6.25	\$8.65
Price of Cover..	.40	.60	.80	1.00	1.95	3.45	5.85

### TANDEM SWITCH BOXES

	Black	Galvanized
Loom, BX or Conduit	2 Gang 3 Gang 4 Gang 2 Gang 3 Gang 4 Gang	
Tandem Boxes 1 1/4 & 2" Deep	2 3/4 & 2 3/4 "	.81 1.23 1.90 .95 1.37 2.18

### DOOR SWITCH BOXES

	Black	Galvd.
For Rigid or Flexible Conduit without Clamps	\$ .50	\$ .55
" " " " " " with Clamps	.60	.65

### LAUNDRY BOXES

	Black	Galvd.
Gem-Appleton or Raco, etc., with Single Receptacle	\$1.10	\$1.25
" " " " " " Duplex	1.25	1.35

For Concrete Boxes See Page PL-5.  
For Solid Gang Boxes See Page PL-6.

## BOXES & COVERS, OUTLET

### CEILING BOXES, ROUND

Universal Nos.	Size and Description	Depth	Knockouts Bottom Side	Price Black Galvd.
36115	3 1/2" With Lugs	1 1/2"	3-1/2" & 4" Loom	\$0.09 \$0.11
36116	3 1/2" No	1 1/2"	3-1/2" & 4"	.07 .09
36125	3 1/2" With	1 1/2"	3-1/2" & 4"	.13 .15
36126	3 1/2" No	1 1/2"	3-1/2" & 4"	.11 .13
36710	3 1/2" Flat Plate with Clamps	1 1/2"	3-1/2" & 4"	.08 .10
56111	4" With Ears	1 1/2"	5-1/2" or 3/4" K.O.	.10 .12
56112	4" No	1 1/2"	5-1/2" or 3/4" K.O.	.06 .08
56115	4" With Ears-Loom & Conduit	1 1/2"	3-1/2" & 6" Loom	.11 .14
56116	4" No	1 1/2"	3-1/2" & 6"	.08 .10
56121	4" With Ears	1 1/2"	5-1/2" or 3/4" K.O.	.13 .15
56122	4" No Ears	1 1/2"	5-1/2" or 3/4" K.O.	.10 .12
56125	4" Ears-Loom & Conduit	1 1/2"	3-1/2" & 6" Loom	.15 .18
56126	4" No Ears	1 1/2"	3-1/2" & 6"	.15 .16
56712	4" Flat Plate	1 1/2"	5-1/2" or 3/4" K.O.	.06 .08

### OUTLET BOXES, OCTAGON

Universal Nos.	Size and Description	Depth	Knockouts Bottom Side	Price Black Galvd.
24151	3 1/2" Oct.-Conduit Box	1 1/2"	1-1/2" 4-1/2"	\$0.10 \$0.12
24151	3 1/2" " " " "	1 1/2"	1-1/2" 4-1/2"	.12 .15
24151FS	3 1/2" " " " " With Stud	1 1/2"	1-1/2" 4-1/2"	.20 .22
54151	4" Oct.-Conduit Box	1 1/2"	5-1/2" 4-1/2"	.14 .16
54151	4" " " " " " "	1 1/2"	5-1/2" 4-1/2"	.15 .17
54151FS	4" " " " " " " With Stud	1 1/2"	5-1/2" 4-1/2"	.15 .17
54155	4" " " " " " " " " " "	1 1/2"	5-1/2" 4-1/2"	.10 .23
54171	4" " " " " " " " " " "	2 1/2"	5-1/2" 4-1/2"	.24 .28

These prices apply only to the United States

Electrical Contracting, August, 1931



Boxes & Covers

COVERS

For 3 1/4"-3 1/2"-4" Octagon or Round Boxes

No.	Size	Description	Black	Galvd.
24C-1	3 1/4"	Blank Cover Flat	\$0.04	\$0.07
24C-2	3 1/4"	Raised	.05	.08
24C-6	3 1/4"	Flat with 1/2" K. O. in Center	.05	.08
24C-7	3 1/4"	Raised with 1/2" K. O.	.06	.09
24C-12	3 1/4"	1/2" Metal Bushing	.06	.09
24C-28	3 1/4"	Spider for Switch or Receptacle	.09	.10
24C-31	3 1/4"	Raised Federal Sign	.07	.09
24C-33	3 1/4"	Flat 1 1/2" hole for other	.18	.18
24C-35A36	3 1/4"	Raised 1 1/2" hole for other	.06	.08
24C-39	3 1/4"	Flat for fluted devices	.17	.19
54C-1	4"	Blank Cover	.05	.08
54C-2	4"	Raised	.06	.09
54C-3	4"	Open 1/2" Deep	.09	.09
54C-6	4"	Flat with 1/2" K. O. in Center	.06	.09
54C-7	4"	Raised with 1/2" K. O.	.08	.11
54C-12	4"	1/2" Metal Bushing	.07	.09
54C-28	4"	Spider for Switch or Receptacle	.08	.10
54C-31	4"	Raised Federal Sign	.07	.10
54C-33	4"	Flat 1 1/2" Hole for Std.	.12	.12
54C-35-6	4"	Raised 1 1/2" Ring	.07	.10
54C-39	4"	Flat for Fluted Devices	.20	.22
54C-48	4"	Raised 1/2" High Open	.07	.10

OUTLET BOXES—Square 4" & 4 1/4"

Universal No.	Size and Description	Depth	Bottom	Side	Black	Galvd.
51151	4" Sq. Comb. Gas & Elect.	1 1/2"	5-1/2"	8-1/2"	\$0.16	\$0.19
51151	4"	1 1/2"	5-1/2"	8-1/2"	.18	.21
52151	4" Conduit Box	1 1/2"	5-1/2"	10-1/2"	.15	.18
52151	4"	1 1/2"	5-1/2"	10-1/2"	.17	.21
52171	4"	2 1/2"	8-1/2"	10-1/2"	.54	.54
72151	4 1/4"	2 1/2"	10-1/2"	12-1/2"	.41	.41
72171	4 1/4"	2 1/2"	12-1/2"	14-1/2"	.48	.48

COVERS For 4" & 4 1/4" Square Boxes

No.	Size	Description	Black	Galvd.
52C-1	4"	Sq. Blank Flat	\$0.07	\$0.10
52C-2	4"	Raised	.10	.13
52C-3	4"	Raised 1/2" High Open	.13	.15
52C-6	4"	Flat with 1/2" K. O. in Center	.10	.12
52C-7	4"	Raised with 1/2" K. O.	.14	.17
52C-12	4"	1/2" Metal Bushing	.12	.14
52C-13	4"	for Rect. Switch or Recept.	.10	.12
52C-14	4"	1 1/2" hole for other	.11	.13
52C-15	4"	1 1/2" hole for other	.16	.18
52C-16	4"	1 1/2" hole for other	.17	.20
52C-17	4"	1 1/2" hole for other	.14	.17
52C-18	4"	1 1/2" hole for other	.16	.19
52C-20	4"	1 1/2" hole for other	.21	.23
52C-21	4"	1 1/2" hole for other	.23	.25
52C-28	4"	Flat Spider for Snap Switches	.16	.18
52C-31	4"	Raised for Sign Rec.	.09	.10
52C-35-36	4"	Fluted Devices	.14	.17
52C-39	4"	with 2 1/2" Opening	.29	.32
52C-48	4"	For French Fixture	.32	.35
52C-49	4"	Single Sw. 1/2" High	.10	.13
72C-1	4 1/4"	Sq. Blank Flat	.27	.30
72C-2	4 1/4"	Raised	.30	.33
72C-3	4 1/4"	Raised Open	.32	.35
72C-7	4 1/4"	With 1/2" K. O. in Center	.32	.35
72C-12	4 1/4"	1/2" Bushing	.32	.35
72C-14-15	4 1/4"	1/2" & 1" for Switch or Rec.	.32	.35
72C-18	4 1/4"	2 Devices	.47	.50
72C-48	4 1/4"	Open 1/2" High	.32	.35
Special	4"	Cover for One Push or Toggle Switch or Single Duplex Receptacle	.20	.25
Covers	4"	Cover Two Push or Toggle Switches or Two Receptacles or Any Combination of Two Devices	.34	.38

EXTENSION RINGS For Octagon & Square Boxes

No.	Size	Description	Black	Galvd.
25151	3 1/4"	Octagon Ring—1 1/2" Deep	\$0.22	\$0.24
53151	4"	or Square Ring 1 1/2" Deep	.24	.26
73151	4 1/4"	Square Ring 1 1/2" Deep	.50	.50
53171	4"	Octagon Ring 2 1/4" Deep	.40	.45
53171	4"	Square 2 1/4" Deep	.68	.68
73171	4 1/4"	Square 2 1/4" Deep	.63	.63

HANDY OR UTILITY BOXES & COVERS For Use With Rigid Conduit

Description	Universal Numbers	Price
Box 3 1/4"x1 1/4"x1 1/4" For Rigid Cond.	58151	\$0.22
Box 4 1/4"x2 1/4"x1 1/4" For Rigid Cond.	58361	.20
Box 4 1/4"x2 1/4"x1 1/4" For Rigid Cond.		.22
Box 4 1/4"x2 1/4"x2 1/4" For Rigid Cond.	58371	.22
Box 4 1/4"x2 1/4"x2 1/4" For Rigid Cond.		.60
Cover Flat Steel Closed	58C1	.08
Cover Porcelain with Holes		.13
Cover Raised for Flush Plug Recept.		.30
Cover for Sgle. Receptacle	58C5	.16
Cover for Duplex Receptacle	58C7	.16
Cover for Toggle Flush Switch	58C30	.16
Cover for Sgle. Push Switch	58C3	.16
Cover for Sign Receptacle	58C33	.18
Cover for Snap Switches	58C28	.18
Cover with 1/2" K. O.	58C6	.16
Cover with 1/2" or 3/4" Nipple		.37
Cover with Bushing for Cord	58C11	.16

CONCRETE BOXES WITH COVERS

Depth	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	5"	6"
Box & Back Plate with 1/2" Stud.	\$0.24	\$0.29	\$0.30	\$0.33	\$0.36	\$0.40	\$0.45	\$0.54
Box & Back Plate less 1/2" Stud.	.21	.24	.27	.31	.32	.38	.41	.50
Plate only 4 1/2" Diam. without Fixture Stud 3 1/4" and 2 1/2" K. O.	.07	.07	.07	.07	.07	.07	.07	.07
Plate only 4 1/2" Diam. with 1/2" Fixture Stud 3 1/4" and 2 1/2" K. O.	.14	.14	.14	.14	.14	.14	.14	.14

SOLID GANG BOXES

Covers Extra

Galvd. Only	2	3	4	5	6	7	8
Box Price	\$ .85	\$1.20	\$1.60	\$2.15	\$4.15	\$5.25	\$6.65
Cover	.40	.60	.80	1.00	1.95	3.45	3.85

BOXES, OUTLET

NEW CODE OUTLET BOXES Box Only

Size	Stud	Clamps	Bush Plates	Price	
3 1/4"x1 1/4" Round	Yes	Two	No	\$0.23	
3 1/4"x1 1/4" Round	No	Two	No	.23	
3 1/4"x1 1/4" Round	Yes	Two	No	.27	
3 1/4"x1 1/4" Octagon	No	Two	Two	.23	
3 1/4"x1 1/4" Octagon	Yes	Two	Two	.27	
3 1/2"x1 1/2" Round	No	Two	No	.18	
3 1/2"x1 1/2" Round	Yes	Two	Two	.23	
3 1/2"x1 1/2" Octagon	No	Two	Two	.23	
3 1/2"x1 1/2" Octagon	Yes	Two	Two	.27	
4x1 1/4" Octagon	No	Two	Two	.27	
4x1 1/4" Octagon	Yes	Two	Two	.32	
G.E. Cable Boxes for Straight Electric or Combination No. 5200-01					.20
Hope Cable Boxes for Straight Electric or Combination No. 2 & 4 & 14					.20
Thomas & Betts No. 565-66-67-68 Standard Cable Boxes					.22
Thomas & Betts No. 553-554 Dead Ground Cable Boxes					.15
Thomas & Betts No. 160-161 Flush Wall Type Cable Boxes					.35

BAR HANGERS FOR OUTLET BOXES

Boxes Extra

Size	Price
(With 1/2" Fixture Stud)	
(With 1/2" Stud add 5c ea.)	
Straight Bar 18" Long	\$0.23
Straight Bar 24" Long	.30
Shallow Offset Bar 19 1/2" Long	.28
Shallow Offset Bar 24" Long	.35
Deep Offset Bar 19 1/2" Long	.28
Deep Offset Bar 24" Long	.35
Straight Old Work Bar 12"	.12
Box Cleat Bar 21"	.12
Straight Saddle Bar	.20

SET-UP BOXES WITH BARS

Size	Ears	Clamps	Bush Plates	Galvd. Price
3 1/4"x1 1/4" Round	No	None	None	\$0.30
3 1/4"x1 1/4" Round	No	Two	None	.35
3 1/4"x1 1/4" Round	Yes	None	None	.35
3 1/4"x1 1/4" Round	Yes	Two	None	.40
For New Code Boxes				
3 1/4"x1 1/4" Oct.	Yes	Two	None	.45
3 1/4"x1 1/4" Oct.	Yes	Two	Two	.50
3 1/4"x1 1/4" Round	No	Two	None	.45
3 1/4"x1 1/4" Round	No	Two	Two	.45
4x1 1/4" Oct.	Yes	Two	None	.50
4x1 1/4" Oct.	Yes	Two	Two	.50
For Conduit				
4x1 1/4" Round	No	None	None	.30
4x1 1/4" Round	Yes	None	None	.35

BUSHINGS & LOCKNUTS

BUSHINGS & LOCKNUTS

For Rigid Conduit

	1/2"	3/4"	1"	1 1/4"
Locknuts—Each	\$ .01	\$ .01 1/4	\$ .02 1/4	\$ .04
Bushings—Each	.01 1/4	.02	.03	.07
Locknuts—Each	1 1/4"	2"	2 1/4"	3"
Bushings—Each	.06	\$ .10	\$ .16	\$ .26
	.09	.15	.23	.35
				.70
				1.10

PORCELAIN CLAMP BUSHINGS

"Federal" or Equivalent

No.	K. O.	Inside Size	Outside Size	Wire Size	Bushing Each	Extra Ring Each
A-1	1/4"	1/4"	1/4"	No. 10	\$ .08	\$ .04
A-1 1/4	1/2"	1/2"	1/2"	No. 10	.10	.04
A-2	3/4"	3/4"	3/4"	No. 8	.10	.04
A-3	1"	1"	1"	No. 8	.12	.05
A-4	1 1/4"	1 1/4"	1 1/4"	No. 00	.15	.07
A-5	1 1/2"	1 1/2"	1 1/2"	450 CM	.22	.10
A-6	2"	2"	2"	1 Mill. CM	.45	.12
B-1	1/4"	1/4"	1/4"	No. 10	.20	.04
K-1	1/4"	1/4"	1/4"	No. 10	.32	.04
K-2	3/4"	3/4"	3/4"	No. 8	.37	.05

"MULTI" PORCELAIN CLAMP BUSHINGS

No.	Inside Size	Outside Size	For Wires	Price Each Complete
10	1/4"	1/4"	14 B & S	\$0.08
12	1/4"	1/4"	14 B & S	.12
15	1/4"	1/4"	14 B & S	.10
20	1/4"	1/4"	6 B & S	.10
30	1/4"	1/4"	2 B & S	.12
40	1/4"	1/4"	000	.20
50	1/4"	1/4"	350,000	.30
55	1/4"	1/4"	600,000	.38
60	1/4"	1/4"	1,000,000	.45

PORCELAIN NO CLAMP BUSHINGS

Multi- With Spring Clip, Not Threaded

Catalog No.	Multi	90A	90B	91	92A	92B
Size of Wire Hole	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
To Fit K. O.	1/4"	1/4"	1/4"	1/4"	1/4"	1/4"
Price	\$ .06	\$ .06	\$ .06	\$ .07	\$ .07	\$ .07

These prices apply only to the United States

### Boxes, Floor

Size	3/4"	1 1/4"	1 3/4"	1"	1 1/2"	1 3/4"	2"	2 1/2"
Without Locknut.....	\$ .05	\$ .11	\$ .12	\$ .14	\$ .16	\$ .30	\$ .45	\$ .60
With Locknut.....	.08	.14	.15	.18	.25	.45	.70	1.10

**Socket Bushings**

Black Composition.....	3/4"	1 1/4"	1 3/4"	2"
For Sockets.....	\$ .02	\$ .02	\$ .04	\$ .08

### NON-ADJUSTABLE TYPE

Latrobe Fullman Mfg. Co.	R. & S. Russell & Stoll	Steel City Steel City Co.	Description	Price
100	.....	.....	Comp. Out. Less Std. Recep. with Stem Nozzle	\$3.70
101	.....	490	" " " " " " " "	2.70
110	2580	477	" " " " " " & Bell	4.10
112	2581	493	" " " " " 3 Wire	5.60
113	.....	491	" " " " " 20A Polarz	5.80
300	.....	499	Midget Out. with 10A Recep. no Nozzle	2.50

140	2502	400	Complete—Standard Box—Less Receptacle	\$5.35
150	2503	401	Deep " " "	5.35
120	....	...	Standard " " "	5.35
130	....	...	" " with "	5.70

251	2511	441	Sgl. Gang Less Recep. with	1/2	Cov. Plate	\$ 6.75
252	2512	442	Two " " " "	1/2	" "	13.20
253	2513	443	Three " " " "	1/2	" "	19.45
254	2514	444	Four " " " "	1/2	" "	25.90
255	2515	445	Five " " " "	1/2	" "	32.00
256	2516	446	Six " " " "	1/2	" "	38.40

283	2686	469	For Duplex Tel. with $\frac{1}{4}$ " Brass Pipe	\$4.35
284	2696	468	" " Recept. " $\frac{1}{4}$ "	5.70
285	2644	468B	" Dbble. Duplex Recept. with $\frac{1}{4}$ " Brass Pipe	9.10
274	2617	...	3" High with Wire Slot & Screw Cap	2.30
295	...	...	For Duplex Recept. with $\frac{1}{4}$ " Brass Pipe	8.25
306	2557	467	Standard Stem Nozzle	1.15
307	2558	466	" " Bell	1.15
270	...	...	Stem Nozzle for Armored Cable	1.15
271	2017	...	Bell	1.65
272	1945	...	Stem " with Wire Slot & Screw Cap	4.90
280	...	...	Single Recept. Nozzle	1.10

G. E.	T. & B.	Description	Price
\$690	8000	Utility Outlet Box Non-Adjustable.....	\$1.00
\$200	1700	Two Wire Flr. " " " "	4.00
\$220-40	1701-2	Three " " " "	5.50
\$300	1703	Extension " " Telo. or Signal.....	2.75
\$400	1730-60	Two Wire " " Adj.—Deep or Shallow.....	6.25
\$420-40	1731-61	Three " " " "	7.25
\$500	1733-63	Telo. or Signal Floor Box Adj.—Deep or Shallow.....	5.00

	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "
Bushed Elbows Iron.....	\$0.60	\$0.80	\$1.15	\$3.40
"Bulb" Tees ".....	.....	1.75	2.60	6.90
Floor Coupling Brass.....	1.40	1.65	2.00	4.30

### TYPE "A" STEEL SURFACE CUTOUT BOXES

Black									
Width Length.		3"		4"		6"		6"	
Side	Side	Deep	Deep	Deep	Side	Long	3"	4"	6"
4 1/2	5	.....	.....	.....	12	30	.....	\$10.75	\$12.40
4 3/4	5	.....	.....	.....	15	.....	2.75	4.15	.....
4 3/4	5	.....	.....	.....	15	.....	3.00	4.40	.....
5 1/2	9 3/4"	.....	.....	.....	15	.....	.....	.....	.....
6	6	.....	.....	.....	15	.....	5.70	6.50	.....
6	8	1.00	1.00	1.40	15	30	13.35	15.30	.....
6	9	.....	.....	.....	18	.....	4.75	5.40	.....
6	9	.....	.....	.....	18	.....	10.65	12.50	.....
6	10	1.25	1.25	1.80	18	30	12.00	13.00	.....
8	8	1.25	1.10	1.70	18	30	.....	.....	.....
8	10	1.45	1.25	2.00	18	30	15.20	15.40	.....
8	12	1.80	1.50	2.25	18	36	17.80	19.40	.....
9	9	1.10	1.80	2.30	18	40	19.50	21.30	.....
9	12	1.40	2.15	2.60	24	24	15.30	17.40	.....
10	7 1/2	1.70	1.50	2.40	24	30	20.80	22.00	.....
10	12	1.95	1.60	2.65	24	36	22.35	23.75	.....
10	15	2.35	1.85	3.10	24	40	24.30	26.60	.....
10	18	2.70	3.00	3.60	24	44	41.35	45.30	.....
12	12	2.25	1.80	3.00	30	30	27.20	29.65	.....
12	14	2.30	3.00	3.60	30	36	47.40	50.00	.....
12	18	.....	2.50	4.00	30	42	48.85	53.00	.....
12	24	.....	4.40	5.40	30	48	56.70	61.30	.....

For Galvanized Boxes Add 25% to above prices.

## Ansonia

Name	No.	Description	Buzzer	2 1/4" Bell	3" Bell	4" Bell	Cow or Sleigh
Ansonia	656	Sgle. Coil Non Adjust.	\$ .40	\$.45	.....	.....	.....
Ansonia	657	Dble. Coil Non Adjust.	.50	.55	\$.60	.....	.....
Wizard	641	Dble. Coil Non Adjust.	.90	.95	1.05	\$1.35	\$1.60
Eureka	659	Dble. Coil Adjust. Class	.....	.....	.....	.....	.....
		B. ....	.95	1.00	1.25	1.60	1.80
Acme	631	Dble. Coil Adjust. Class	.....	.....	.....	.....	.....
		A. ....	1.35	1.40	1.50	1.80	2.10
Eureka	621	Dble. Wood Box Bell	1.20	1.35	1.40	1.65	1.85
Monitor	661	Round Type Monitor	.....	.....	1.50	.....	.....
Wizard	666	Stretch Case Buzzer Round	.....	.....	.....	.....	.....
Ansonia	663	Comb. Bell & Buzzer	1.00	1.00	1.00	.....	.....
Ansonia	664	Comb. Bell & Buzzer	.....	1.15	.....	.....	.....

Size	2 1/4"	3"	4"	5"	6"	7"	8"	10"	12"
620 D.C.Skeleton	\$4.55	\$5.00	\$5.75	\$7.60	\$8.75	\$12.35	\$13.20	\$20.60	
622 D.C.Weatherprf				13.00	14.65		18.15	30.30	\$40.85
624 Wthpf,Trans.Bell				16.30	17.95		21.85	37.10	42.30

Name	No.	Size	Description	Price
Nubel	735	2 1/4"	Two Coil Non-Adjust.-Gray Enam. Bell	\$ .65
	736	"	" " " " " " Buzzer	.60
Dixie	730	2 1/4"	" " Class C-Non-Adjust. Bell	.95
	725	"	" " " " " " Buzzer	.90
Combell	737	2 1/4"	Two Coil Non-Adjust.-Gray Enam. Bell & Buzzer	1.15
Tubell	738	"	Dble. Coil Non-Adjust.-Gray Enam. Two Bells	1.20
Cadet	710	2 1/4"	Two Coil-Class B-Adjust. Bell	1.00
"	715	"	" " " " " " Buzzer	.95
"	712	3"	" " " " " " Bell	1.25
"	714	4"	" " " " " " Bell	1.60
"	"	"	" " " " " " Cow or Sleigh	1.80
Buz-A-Bell	730	2 1/4"	Two-Coil-Class C Comb. Bell & Buzzer	1.20
Monitor	156	3"	Monitor Bell-Nickel Plated Gong	1.50
Bronx	750	1 1/4"	Nickel Watch Case Buzzer	1.25
Buzzer	16	"	Flux Buzzer fits Standard Switch Box	2.40

	3"	4"	6"	8"	10"	12"	Buzzer
17 "Economy" Skelet. Bells	\$5.50	\$6.75	\$8.75	\$14.25	\$21.25	\$27.50	.....
510 A. C. Transformer "	9.40	10.15	18.90	23.45	41.90	48.00	\$7.00

Size	Price
1 <sup>st</sup>	\$2.00
1 <sup>st</sup> 1/2	1.80
2 <sup>nd</sup> 1/2	1.60
3 <sup>rd</sup> 1/2	1.40
4 <sup>th</sup> 1/2	1.20
5 <sup>th</sup> 1/2	1.00
6 <sup>th</sup> 1/2	.80
Cow or Sleigh	2.25

No.0.....	Price
No.1.....	\$1.80
No.2.....	1.50
No.3.....	1.70
No.4.....	2.00
	2.20

Small 2 1/4" Iron Box Bell Non-Adjust. Dble. Magnet .....	40
Small 1 3/4" Iron Box Bell Non-Adjustable Double Magnet.....	38
Fancy Gong Cow or Sleigh Non-Adjust. Dble. Magnet.....	1.60
King Monitor Bell .....	1.00
6" Large Iron Box Bell for Battery Current.....	6.50
8" .....	8.00

No. 1 Small Iron Box Buzzer Non-Adjust. Dble. Magnet.....	\$ .40
Watch Case Buzzer Nickeled.....	1.10
Midget Buzzer Nickeled.....	1.90
Wood Box Buzzer.....	2.10
Flush Buzzer with Flush Plate.....	3.00

Regular Type		Large Type	
2½" Regular.....	\$ 2.20	8" Regular.....	\$ 6.50
3" ".....	2.25	9" ".....	8.00
4" ".....	2.65	10" ".....	13.25
Standard Cow or Dinner...	3.05	5" Dinner.....	11.40
3" Dinner.....	6.20	6" Dinner.....	13.30
3" Cow.....	8.55	7" Cow.....	14.00
4" Cow.....	6.60	8" Cow.....	16.00
4" ".....	10.00		

Name	No.	Description	Buzzer	2 1/2"	3"
Competition	400-1	Dble. Coil Non-Adjust.	\$ .60	\$ .65	Bel
Eclipse	200-3	" " " "	.90	.95	\$1.00
XXX	211-18	" " Adjust. B	.95	1.00	1.25
Marlo	221-29	" " " A	1.65	1.70	1.80
Eclipse	205	Comb. Bell & Buzzer	1.25	1.25	"
Competition	402	" " " "	1.00	1.00	"
Midget	331-34	All Nickleed Bell	1.50	1.80	"
P. R.	240	Watch Case Buzzer	1.25	"	"
P. R.	238	Monitor	"	"	"

	Buzzer	2 1/4"	3"	4"	Tea
Single Coil Bell or Buzzer No. 31 & 32..	\$ .55	\$ .65	\$ .70	\$1.50	\$1.30
Two Coil Bell or Buzzer No. 31-321.	.80	.50	.55	.80	.....
Combination Bell & Buzzer No.					
331-333.....	.90	.90	.....	.....	.....
Flush Type Buzzer No. 31S.....	1.25	.....	.....	.....	.....

	2 1/2"	3"	4"	5"	6"	8"	10"	12"
Faraday....	\$5.70	\$6.00	\$7.00	\$9.40	\$10.60	\$16.00	\$25.00	\$31.00
Faraday Elka.	5.25	5.50	6.60	7.75	8.75	14.25	21.25	27.00

*Electrical Contracting, August, 1931*

## Push Buttons, Etc.

## Brackets, Racks and Wireholders

## PUSH BUTTONS, TREADS, SPRINGS

## STANDARD PUSHES AND TREADS

Description	Price
Round 1 1/4" and 1 3/4" Stamped Brass.....	\$0.20
Round 2 1/4" Stamped Brass.....	.25
Round 2 1/4" with Card Holder Stamped Brass.....	.40
Rectangular 4x2" Stamped Brass.....	.40
Rectangular 3 1/2x1 1/2" Stamped Brass.....	.40
Oval 2 1/2"x1 1/2" Stamped Brass.....	.30
Oval 4 1/2"x2" Stamped Brass.....	.45
Pear Push Buttons—Wood or Composition.....	.60
Pear Push Buttons—Metal, Nickel or Brass.....	.85
Desk Buttons—1/2" Hole—Nickel.....	.75
Desk Buttons—1/2" Hole—Nickel.....	.85
Desk Buttons—1/2" Hole—Nickel.....	.45
High Voltage 3/4" Hole—110 Volts.....	2.40
Table Clamp with Push Button.....	1.00
Floor Pushes Combination Nickel.....	.85
Floor Treads—"Daisy" "Dixie".....	1.50
Wood Push Buttons.....	.20

## BAKELITE OR COMPOSITION PUSHES

Round Plain 1 1/4" Diam.....	\$0.30	Rectangular Plain 1 1/2x3 1/4".....	\$0.40
Octagon Fancy 1 1/2x1 1/4" Diam.....	.35	Rectangular Fancy 1 1/2x3 1/4".....	.60
Oct. Card Holder 2 1/2x2 1/4" Diam.....	.40	Rec. Double Card Holder.....	.85

## DESK PUSHES—COMPOUND

## With Buttons

Make and Description	1	2	3	4	5	6
Edw. #146—Bakelite Block.....	\$2.10	\$2.50	\$3.20	\$3.65	\$4.50	\$5.25
Edw. #197 Less Cord Bake.Bl.....	3.50	4.75	6.00	7.25	8.50	9.75
Edw. #197 with 6' Cord Bake.Bl.....	4.05	6.10	7.75	9.45	11.15	12.85
Edw. #190 Wood—Less Cord.....	4.00	5.35	6.60	8.10	9.40	10.80
Edw. #190 Wood with Cord.....	4.45	6.65	8.35	10.30	12.05	13.90
Fara. #4C Wood Less Cord.....	2.00	2.30	2.60	3.05	3.50	3.90
Fara. #2A Wood Less Cord.....	4.90	7.00	8.50	10.60	12.40	13.80
Fara. B.D.P. Bake. Less Cord.....	3.50	4.75	6.00	7.25	8.50	9.75
Fara. M.D.P. All Metal Less Cord.....	6.00	11.00	16.00	21.00		
P&W #4 Wood Less Cord.....	2.60	2.80	3.50	4.30	4.85	5.60
P&W #5 Wood Angle Less Cord.....				13.00		13.95
P&W #12 Wood Less Cord.....	3.30	4.25	5.45			6.00

## DOOR AND WINDOW SPRINGS

## Door Springs

Open Circuit Door Spring.....	\$0.40	Open Circuit Single.....	\$0.60
Closed Circuit Door Spring.....	.50	Open Circuit Double.....	.85
Open Circuit Make and Break.....	.50	Close Circuit Single.....	1.00
Open Circuit Door Trip.....	1.00	Open Circuit Transom.....	1.60

## Window Springs

## OTHER PUSH BUTTONS

## Ansonia

Round Stamped	Price	Round Cast	Price
514 1 1/4" Loose Back.....	\$0.30	511 1 1/4" Loose Back.....	\$0.90
515 2 1/4" Loose Back.....	.40	512 2 1/4" Loose Back.....	1.00
579 1 1/4" Flush Push.....	1.00	508-10 2 1/4" Loose Back.....	1.00
E33 1 1/4" Flush Push.....	1.00	540 2 1/4" Loose Back.....	.60
		550 2 1/4" Loose Back.....	.85
		570 2 1/4" Loose Back.....	.75
F-33 Stamped Flush Push.....	\$0.70	545 Oblong 2 Gang for Cards.....	\$1.85
G-33 Stamped Diamond Push.....	.70	545 Oblong 3 Gang for Cards.....	2.65
521 Stamped Push.....	.75	545 Oblong 4 Gang for Cards.....	3.65
528-534 Stamped Push.....	.95	546 Oblong 1 Gang.....	1.65
536-537 Stamped Push Loose Back.....	1.00	547 Oblong 2 Gang.....	1.50
		548 Oblong 1 Gang.....	.75
538 Stamped Oblong Push.....	1.25	549 Oblong 1 Gang.....	1.20
541 Oblong for Card.....	1.65	577 Diamond Push.....	.70
544 Oblong for Card.....	1.20	578 Diamond Push.....	.75
Combination Floor Pushes Complete.....	573		2.50
700 1 Point Wood Base Switch.....			.45

## Edwards

## Round Desk Buttons

621—3/4" Hole.....	\$1.40	602—2 Gang for Cards.....	\$1.00
622—1/2" Hole.....	1.45	607—Single for Cards.....	.40
625—3/4" Hole.....	.50	608—Single.....	.45
1786—2 1/4" Watertight.....	3.00	650—Single Solid Cast Brass.....	1.10

## Partrick &amp; Wilkins

## Round Push Buttons

Stained Wood Push #2.....	\$0.15
Oak Wood Regular #1.....	.35
Oak Open, Closed and Dbl. Cont. #1.....	.65
Oak Triple Contact #1.....	.90
Cast Brass 1 1/4" Diam. #8.....	.55
Cast Brass 2 1/4" Diam. #9.....	.65

## Oblong Pushes

16 Cast Brass 4 1/2x1 1/2" Screw Cap.....	\$1.55
31 Cast Brass 5x2 1/2" Screw Cap.....	2.15
44 Cast Brass 4 1/2" Screw Cap.....	1.40
708 Wrought Push and Speak 1 Pce.....	1.00
907 2 Button and Card Holder.....	2.15
908 3 Button and Card Holder.....	2.95
909 4 Button and Card Holder.....	4.55

## Desk Push Buttons

Car Push 1/2" Hole Black Center.....	\$0.45
Multiple 3/4" Hole Black Center.....	1.35
Pony 3/4" Hole Black Center.....	1.85

## Pear Shape Pushes

Compound Maple 2 Button.....	\$2.00
Compound Maple 3 Button.....	3.00
Wood Rosettes for above.....	.40

## MULTIPLE PUSH BUTTONS

## Couch "Pushrites"

## With Card Holders

Number of Buttons	Plain Base		Wood Base Type		Flush Brass Plate Type	
	Number	Price	Number	Price	Number	Price
4	7900	\$ 3.35	7980	\$ 3.75	7940	\$ 5.00
6	7940	4.60	7980	5.20		
8	7910	5.80	7990	6.65	7950	9.15
12	7921	8.30	79010	9.60	7960	13.30
16	7930	10.80	79020	12.45	7970	17.50
20	793	13.30	7902	16.40	797	21.60

## COUCH UNMOUNTED PUSH BUTTONS "WORKRITES"

No. 97 for 1/4" Hole.....	\$0.50
Adaptor No. 0684 for same.....	.05

## BRACKETS, RACKS AND WIREHOLDERS

Findlay—G. E.—Hubbard—Joslyn and National

## HOUSE BRACKETS

## For Pin Type Insulators, Less Insulators

Description	No. of Wires	Spacing	Price	Description	No. of Wires	Spacing	Price
Light Type	One		\$0.25	Corner Type	One		\$0.30
	Two	9"	.55		Two	9"	.55
	Three	6 1/2"	.90		Three	6 1/2"	.90
	One		.40				
Heavy Type	Two	9"	1.10				
	Three	6 1/2"	1.10				

## HOUSE RACKS

## With Insulators Attached

	One	...	\$0.40		Two	4"	\$1.10
	Four	4 1/2"	.95			8"	1.65
Light Type	Two	6"	.80	Heavy Type	Three	4"	1.75
	Three	3"	.95			8"	2.10
	"	6"	1.20		Four	4"	2.20
					Five	4"	2.70

## WIREHOLDERS

## Separable Base With Insulator

Description	Two	Price	Description	Three	Price
Light Type	6"	\$0.55	Light Type	4 1/2"	\$0.80
	9"	.60		6"	.85

## WIREHOLDERS

## With Insulators Attached

Description	One	Two	Price	Description	One	Two	Price
Light Type	6"		\$0.30	Heavy Type	One	6"	\$0.65
	9"		.55		Two	6"	1.25
	4 1/2"		.80		Three	6"	1.30
	6"		.85		Four	6"	1.85
					Five	6"	1.95

## SECONDARY RACKS

## With Insulators Attached

Description	Two	Three	Price	Description	Two	Three	Price
Light Type	6"		\$0.90	Heavy Type	Two	5"	\$1.30
	8"		1.30		Three	5"	2.15
	6"		.85		Four	5"	1.90
	8"		1.20		Five	5"	1.35
	6"		.90				2.00
	8"		1.30				

## WIRE HOLDERS

## All Porcelain Screw Type Single Point

Description	Price
2 1/2x2 1/2"—20x2" Wood Screw.....	\$0.20
1 1/2x2 1/2"—20x2" " ".....	.14
2 1/2x3 1/2"—22x2 1/4" " ".....	.25
2 1/2x3 1/2"—22x2 1/4" " ".....	.25
Swinging Round Knob 22x2" Wood Screw.....	.90
" Oblong " 22x2" " ".....	.35
" Round " 3/4x3" Lag Screw.....	.35
Rigid Oblong Knob 22x2" Wood Screw.....	.25
" Large " 24x2 1/4" " ".....	.60

## SPOOL INSULATORS

## All Porcelain For Secondary Racks

Description	Price
3" x 3 1/2" One Groove.....	\$0.20
3" x 3 1/2" Two ".....	.25
3" x 3 1/2" One ".....	.30
2 1/2" x 2 1/2" " ".....	.10
2 1/2" x 2 1/2" " ".....	.15
3" x 3 1/2" " ".....	.18
Oblong Insulator—Light Type.....	.15
" Heavy Type.....	.18

These prices apply only to the United States



# GENERAL CABLE Building Wires



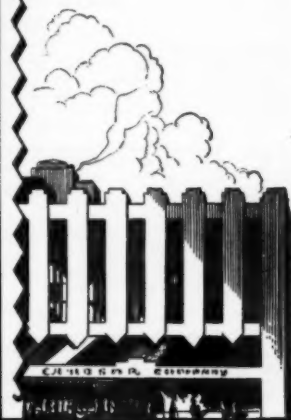
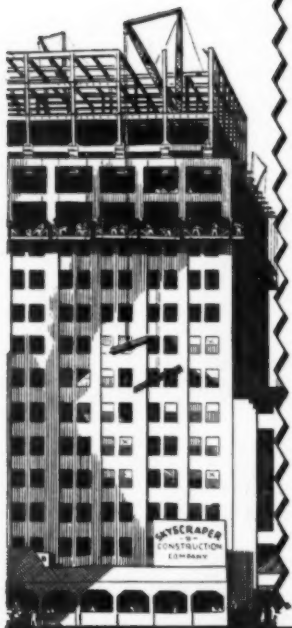
CODE

DETROIT  
PARAC  
ROME

•  
INTERMEDIATE

A-A RED  
TRITON

•  
30%  
A-A  
NEPTUNE



## Contractors know General Cable quality

General Cable's several widely known building wires have made enviable records for long life and dependability. Each is of uniform quality, insulated under the most modern practices in rubber compounding developed

at General Cable Laboratories; and finished and packed for greatest efficiency and economy in handling on the job.

Leading architects and engineers, everywhere, specify General Cable building wires.

**GENERAL CABLE CORPORATION**  
EXECUTIVE OFFICES: 420 LEXINGTON AVENUE, NEW YORK • OFFICES IN PRINCIPAL CITIES



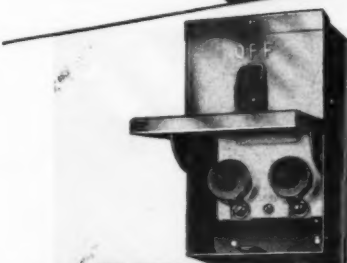
# MOTOR STARTING SWITCH

## H & H

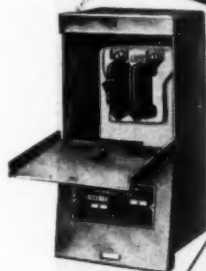


### TUMBLER TYPE

## New Line for Thermal Plug Cutouts—plug or cartridge fuses for $\frac{3}{4}$ to 5 H.P. Motors



Bottom cover open, showing thermal cutouts and line connections. Ample space gives free hand in wiring. Cutouts changed or removed without removing cover. . . .



Top cover open, exposing tumbler mechanism (with protecting fibre cover off). No parts to remove; nothing to hinder fast work by the wireman. . . .

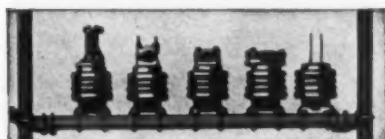
This switch carries the heavy starting current as the motor picks up its load, but protects motor from damage by prolonged overloads. The thermal cutouts withstand momentary "peaks" but open the circuit against sustained overload. This saves breaks in motor operation which are equivalent to breakdowns in the production-schedules of the motor-driven machines. . . **QUICK MAKE-AND-BREAK:** Kick-off feature of mechanism positively prevents sticking or failing to operate. Bakelite arc snuffers greatly increase current-breaking capacity. Switch mechanism is mounted on special non-absorptive porcelain base—the best insulator known. **EASY TO WIRE:** Box has interlocking cover; plenty of room top and bottom. Can be locked in safety position, against tampering. Knockouts provided,  $\frac{1}{2}$ " to  $\frac{3}{4}$ " diameter. Cadmium plated box, rust proof. Write for complete data-sheet. " " " " " " " " " " " "

## HART & HEGEMAN DIVISION

THE ARROW-HART & HEGEMAN ELECTRIC CO.  
HARTFORD, CONN. MAKERS OF ELECTRIC SWITCHES SINCE 1890

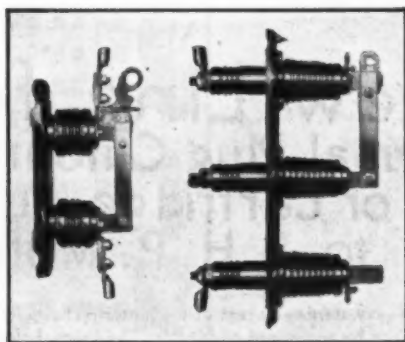
## Prepare for Your Switchboard Needs with These Devices

Are you prepared for future switchboard needs—the addition of new panels, changes in present arrangements, or repairs to existing equipment? With General Electric switchgear devices, you are ready for emergencies. A few devices are listed below. There is a G-E warehouse near you.



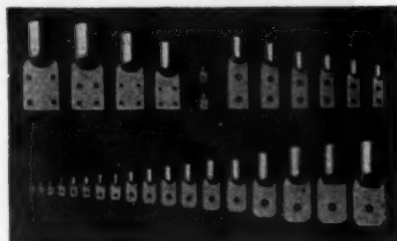
### Bus Supports and Clamps

Whether your bus requirements are simple or complex, there are G-E supports and clamps to meet them. Supports are for either moderate, heavy, or extra-heavy duty, and are for either pipe or flat-surface mounting to support bus bars, tubes, or cables. Ask for a copy of GEA-924A.



### Disconnecting Switches

Indoor disconnecting switches in ratings up to 23,000 volts, 200 to 1200 amperes, are available for any form of connection. Group-operated and selector switches are part of the line. Send for a copy of publication GEA-1096A.



### Terminals and Terminal Boards

For more than 20 years, General Electric has manufactured pressed copper-tube terminals for all sizes of cable up to 2,000,000 circular mils. Terminal boards for small wires are also available. Publication GEA-938A provides a convenient reference.



### Panel Fittings

Whether it be for a single panel, switchboard, or benchboard, the right fittings to clamp the pipe structure or to join the supporting framework to the panel are available. They are built to clamp standard-size pipe, and can be assembled quickly and easily. For details, request GEA-940A.

500-66

# GENERAL ELECTRIC

SALES AND ENGINEERING SERVICE IN PRINCIPAL CITIES



"DIAMOND H"

## Controlled Light in a Church

### Architects:

Mayer, Murray & Phillips  
New York

### Switchboard:

Metropolitan Elec. Mfg. Co.  
New York

### Elec. Contractor:

A. Gustafson Co.  
New York

The Church of the Heavenly Rest in New York City is an outstanding example of fine architectural design.

The interior is beautifully lighted with indirect and reflected light. All of this lighting is controlled by the use of "Diamond H" Remote Control switches.

Because of the very wide application of these switches to all forms of lighting control, the lighting plans of America's finest buildings usually include "Diamond H" remote control. For twenty years they have been the choice of architects, engineers and contractors.

Controlled light is the modern method of dependable and reliable control of lighting circuits.

In Bulletin No. 10 we show the various kinds of switches we make, the purposes for which they are designed, and wiring plans to show different applications. If you haven't this bulletin we will send it gladly. Our engineering department is ready to help with any application.



NEW YORK  
BOSTON  
CHICAGO  
DETROIT  
DALLAS

THE HART MANUFACTURING CO.  
HARTFORD, CONN.

MINNEAPOLIS  
CLEVELAND  
PHILADELPHIA  
SAN FRANCISCO  
TORONTO, CANADA

# DIAMOND H SWITCHES

## Brackets and Racks

Rack Foot.....	\$0.20
4" Extension.....	.25
8"       ".....	.35
12"       ".....	.45

Universal

Size	Price	Size	Price
1" .....	\$0.24	2 1/4" .....	\$0.85
1 1/4" .....	.40	1 1/2" .....	.80
2" .....	.60	2" .....	.65

### Standard

Wood Brackets			
1½x2	x10	.....	\$0.07
1½x2	x12	.....	.08
1½x2½	x12	.....	.09
1½x2	x12	.....	\$0.08
2	x2½	x12	.....
2	x2½	x12	.....
2	x3	x12	.....
			.10
			.10
			.15

## Pins

Locust	1 1/4 x 8	.....	\$0.00	Locust	1 1/4 x 9	.....	\$0.10
Oak	1 1/4 x 8	.....	.05	Oak	1 1/2 x 9	.....	.08

### B-SUNDRIES, BOLTS, ETC.

**Galvanized**

			Length					
		3"	3 1/4"	4"	4 1/4"	5"	5 1/4"	6"
3/4" Diam. Each.	..	\$ .03	\$ .04	\$ .04	\$ .05	\$ .05	\$ .06	\$ .07
3/4" ..	..	.06	.07	.07	.08	.08	.09	.10

**Galvanized**

Diam.		Length											
		3'	4'	5'	6'	7'	8'	10'	12'	14'	16'	18'	
1/2"	Each	\$ .04	\$ .05	\$ .05	\$ .06								
3/4"	"			.08	.09	\$ .10	\$ .11	\$ .12	\$ .14	\$ .16	\$ .18	\$ .20	
1"	"				.13		.15	.17	.19	.21	.23	.24	
1 1/4"	"						.22	.24	.26	.29	.32	.34	

## Galvanized

	20"	22"	24"	26"	28"	30"	32"
1 lb x 6'.....	\$ .20	\$ .20	\$ .25	\$ .25	\$ .30	\$ .30	\$ .35
1 lb x 8'.....	.20	.25	.25	.30	.30	.35	.35

### Round or Flat Head

		Length		Diameter			
				$\frac{3}{16}$ "	$\frac{1}{2}$ "	$\frac{5}{8}$ "	$\frac{3}{4}$ "
Up to 1"	Long Per Dozen . . . . .			\$ .10	\$ .10	\$ .12	\$ .15
1" to 1 $\frac{1}{2}$ "	" " " " " " " " " "			.10	.10	.12	.20
1 $\frac{1}{2}$ " to 2"	" " " " " " " " " "			.10	.12	.15	.25
2" to 2 $\frac{1}{2}$ "	" " " " " " " " " "			. . . .	.20	.25	.30
2 $\frac{1}{2}$ " to 3"	" " " " " " " " " "			. . . .	.25	.30	.35

**"Paine"**

[illegible]

NOTE: For Brass Toggle Bolts—2½ times above prices.

### For Outlet Boxes & Steel Cabinets

Reducing Washers	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"
Price Each	\$ .02	\$ .02	\$ .03	\$ .04	\$ .05	\$ .06

### For Outlet Boxes & Steel Cabinets

For Closing $\frac{3}{4}$ " K. O.	.....	\$ .00
For Closing $\frac{3}{4}$ " K. O.	.....	..00
For Closing 1" K. O.	.....	..00
Ceiling Button—P & S Porcelain No. 170—Each	.....	..15
Switch Base—See Snap Switches Page PL-19.		

## CORDS, FIXTURE, LAMP AND HEATER

**Single Lamp Cord**

	Type	No. 18	No. 16	No. 14	No. 12
Single Cotton Covered Cord—Light	F-64	\$ .01	\$ .02	\$ .02½	\$ .03
Single Cotton Covered Cord—Heavy	F-32	.01½	.02	.03	\$ .04
Single Artificial Silk Cord—Light...	F-64	.01½	.02½	.03	...
Single Artificial Silk Cord—Heavy...	F-32	.01½	.03	.04	...

*These prices apply only to the United States*

Regular Lamp Cord

	Type	No. 18	No. 16	No. 14	No. 12
Cotton Covered Twisted Pair.....	C	\$ .02	\$ .02½	\$ .04	\$ .06
"    "    Parallel Pair.....	PO	.02½	.04	.05	.....
x "    "    Twisted Parallel Pair.....	PD	.03	.05	.....	.....
Artificial Silk Twisted Pair.....	C	.02½	.04	.06	.....
"    "    Parallel Pair.....	PO	.02½	.05	.07	.....

x P. D. Cord is not listed in N. E. C. Code Approved Cords.

P

	Type	No. 18	No. 16	No. 14	No. 12
Cotton Covered Light Type $\frac{1}{4}$ ..	P5	\$.03	\$.04	\$.07	...
Heavy " $\frac{1}{4}$ ..	P	.04	.05	.07	\$.12
Weatherproof Light Type $\frac{1}{4}$ ..	PSWP	.03½	.04	...	...
Heavy Type $\frac{1}{4}$ ..	PWP	.04	.05	.07	...

**"Duracord" or Similar. Extra Reinforced**

					Price Per Foot				
Type	P5	Light 2	Cond.	Port. Cord.	No. 18	No. 16	No. 14	No. 12	No. 10
"	P	Heavy 2	"	"	..	..	..	..	..
"	P	"	"	"	..	..	..	..	..
"	"	"	"	"	..	..	..	..	..

**"Tirex" "Royal" "Super-Service" "Indestructo" or Similar**

	No. 18	No. 10	No. 14	No. 12	No. 10
5J Junior 2 Conductor Black.....	\$ .06	\$ .08	.....	.....	.....
"    "    "    Green.....	.08	.10	.....	.....	.....
"    "    "    Black.....	.11	.14	.....	.....	.....
S Type Heavy 2 Conductor Black.....	.12	.14	\$ .19	\$ .24	\$ .30
"    "    "    Green.....	.15	.18	.24	.26	.36
"    "    "    Black.....	.17	.20	.26	.30	.40
"    "    "    Spl. Cond. Black.....	.08	.09	.10	.11	.13

	Price Per Foot				
Asbestos Covered	No. 18	No. 17	No. 16	No. 14	No. 13
Stand, Twisted or Wound Asbest. 1/4	\$ .05	\$ .05	\$ .06	\$ .08	\$ .10
American Beauty Heater Cord Super Flexible.....		.00		.12	.21
Rockbestos Heater Cord.....	.07	.07 1/2	.08	.10	.20
Universal No. 9092 Super Flexible....		.00	.08		

	No. 18	Price Per Foot No. 17 No. 16 No. 14 No. 12
"Deltabeston" Heater Cord.....		
Type A Asbestos Braid overall Loco Cab Cord .....	\$ .08	.09 \$ .10 \$.11 \$.16
" C Cotton Braid overall.....	.07	.07 .08 .....
" D " " " " " " " "	.07	.08 .09 .....
" E Cotton on ea. Cond. & over bolt.....	.08	.09 .10 .....

**NOTE**—For Armored Cords See Page PL-9.  
 " Extension Cords See Page PL-10.  
 " Fixture Wire See Pages PL-26 & 27.  
 " Bell Wire See Page PL-27.

Description	Type	Price Per Foot			
		No. 18	No. 16	No. 14	No. 12
x Brewery Cord.....	CH	\$ .03	\$ .04	\$ .05	.....
x Canvasite Cord.....	CC	.05	.06	.08	.....
x Deck Cable.....	PWP	.05	.07	.10	.....
x Packinghouse Cable.....	PKWP	.05	.06	.07 1/2	.....
x Stage & Theatre Cable.....	T	.05	.08	.07 1/2	\$ .14
Type "K".....	K	.06			
	Canvasite and Packinghouse Cable				They are no

Included in present listing of N. E. C. Code Approved Cords.

x Note—These prices are based on less than coil lot trade prices.

## Spun Silk

	Open End							
Number of Conductors	2	3	4	5	8	10	14	18
	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.	Cond.
Price Per Foot.....	\$ .08	\$ .15	\$ .20	\$ .21	\$ .25	\$ .35	\$ .50	\$ .70

**Note—For Armored Lamp Cord See Page PL-9.**

## CONDUIT, ELBOWS, COUPLINGS, BUSHINGS, ETC.

	Black Per Foot	Galvd. Per Foot	Cutting & Threading Per Thread	Cutting Only Per Cu
1/4"	.10	.11	.20	.10
1/2"	.11	.12	.20	.10
3/4"	.16	.17	.25	.10
1"	.22	.24	.30	.15
1 1/4"	.26	.29	.35	.15
1 1/2"	.35	.39	.40	.30
2"	.55	.62	.50	.35
2 1/2"	.72	.80	.60	.30
3"	.92	1.03	.70	.30
3 1/2"	1.12	1.23	.80	.30



## Conduit

PL-3  
C-Sundries

## THIN WALL CONDUIT

	3/8" or 1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Threadless.....Per Foot	\$0.09	\$0.12	\$0.16	\$0.22	\$0.26	\$0.36
Adaptor Wpl.....Each	.15	.25	.35	.65	.85	1.30
Couplings or Conn.....	.15	.25	.35	.65	.85	1.30
Elbows less Coupling.....				.50	.60	1.10

NOTE—One Coupling is included with each 10 ft. Length Conduit.

ELBOWS OR BENDS, COUPLINGS, OR UNIONS,  
BUSHINGS, LOCKNUTS, REDUCERS

## Price Each

Size Each	Bends or Elbows	Couplings	Bushings	Locknut Unions	Erickson Coupl. or Reducers
	Black Galv.	Black Galv.	Galv.	Galv.	Galv.
1/2"	.14	.16	.09	.10	.01 1/4
3/4"	.18	.21	.15	.14	.02
1"	.28	.32	.16	.18	.05
1 1/4"	.38	.43	.23	.24	.07
1 1/2"	.51	.58	.28	.31	.09
2"	.83	.95	.37	.41	.15
2 1/2"	1.35	1.55	.53	.59	.23
3"	3.58	4.08	.72	.79	.35
3 1/2"	7.87	9.00	.96	1.04	.70
4"	9.10	10.40	1.20	1.30	1.10

Also on Page PL-10.

Also on

Page

PL-8

Also on

Page

PL-12

## CONDUIT PENNIES

Size	Price	Size	Price
1/2"	\$0.01	2"	\$0.04
3/4"	.01	2 1/4"	.05
1"	.01 1/2	3"	.07
1 1/4"	.02	3 1/2"	.08
1 1/2"	.03	4"	.10

## FLEXIBLE METALLIC CONDUIT

## "Greenfield", "Flexsteel", or Similar

Single Strip Per Foot....	3/8"	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
Double Strip Per Foot....	.09	.12	.14	.19	.40	.45	.79
For Fittings for Metallic Conduit See Page PL-14.	.11	.14	.17	.23	.42	.50	.71
For Non-Metallic Conduit or Loom See Page PL-15.							
For Steel Armored Cable & Lead Covered See Next Item.							

## RUNNING THREAD, PIPE

Price per Foot.....	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
	.25	.30	.45	.55		

## CONDUIT PENNIES

Price Each.....	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/4"	3"	4"
	.01	.01	.01 1/4	.02	.03	.04	.05	.07	.10

## CONDUIT WOOD PLUGS

Price Each.....	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
	.02	.03	.04	.08	.14	.22

For Pipe Straps, see Page PL-25. For Solder, Sticks, etc., Page PL-25.

CABLE, ARMORED & NON-METALLIC  
SHEATHEDARMORED CABLE, "BX", "ABC", "FLEXSTEEL", OR  
SIMILAR

			Price Per Foot	No. 14	No. 12	No. 10
TWO CONDUCTOR	Solid	Single Strip		.05	.07	.09
THREE CONDUCTOR	Stranded	" "		.07	.09	.12
FOUR CONDUCTOR	Solid	" "		.15	.18	.22
ONE CONDUCTOR	Solid	" "		.08	.09	.10
CONDUCTOR	Stranded	" "		.11	.12	.16
OVALFLEX	2 Conductor	" "		.08	.12	.16
	3 Conductor	" "		.12	.16	.22
			Price Per Foot	No. 8	No. 6	No. 4
TWO CONDUCTOR	Solid	Single Strip		.15	.22	.34
THREE CONDUCTOR	Stranded	" "		.18	.25	.44
FOUR CONDUCTOR	Solid	" "		.32	.44	.74
ONE CONDUCTOR	Solid	" "		.11	.13	.24
CONDUCTOR	Stranded	" "		.12	.14	.24

Double Strip Armored Cable add 30% to above prices.

Anti-Short Fibre Bushings for ABC Cable, Each..... \$0.02

Clips or Staples 3/8" for Armored or Non-Metallic Cable, Each..... .01

## ARMORED SERVICE ENTRANCE CABLE

	Size—No. 8	Per Foot	No. 6	No. 4
Three Conductor Stranded Service Cable.....	.30	.40	.50	

## "ABC" LEAD COVERED ARMORED CABLE

		Price Per Foot	No. 14	No. 12	No. 10
Single Conductor Solid Lead	Covered		.07		
Stranded	" "			.15	.22
Two Conductor Solid	" "		.20	.24	.28
Stranded	" "				
Three	" "				

		Price Per Foot	No. 8	No. 6	No. 4
Single Conductor Solid Lead	Covered		.14	.20	
Stranded	" "		.30	.41	
Two	" "		.42	.58	.70
Stranded	" "				
Three	" "				

## "ABC" ARMORED LAMP CORD

	Single Strip	Per Foot	No. 18	No. 16	No. 14
Plain Armored Lamp Cord, Two Conductor.....		.09	.11	.14	
Add 30% for Double Strip					

## NON-METALLIC SHEATHED CABLE

## "Romex", "Loomwire", "Wireflex", or similar

(With or Without Ground Wire)	#14	#12	#10	#8	#6	#4
Wire 2 Conductor per Foot.....	\$0.05	\$0.07	\$0.10	\$0.15	\$0.23	\$0.28
Wire 3 Conductor per Foot.....	.08	.10	.13	.20	.27	.43
Fitting-Straps Each.....	.01	.01	.01	.01	.01	.01
Fitting-Clips Each.....	.03	.03	.08			
Fitting-Connectors Each.....	.10	.10	.20	.20	.30	.55

## CUTOUTS OR FUSE BLOCKS

## PLUG CUTOUTS

## 30 Amp. Porcelain

Description	Price
Single Pole—Main Line.....	62569
Double " ".....	62965
Triple " ".....	62165
Double Pole Single Branch.....	61935
" " Double.....	62587
" " Single or Double Cross Branch.....	8020
Triple to D. P. Double Branch.....	62199
Triple Pole Single Branch.....	5042
" Double.....	62135

## DEAD FRONT CUTOUT BASES

## Plug Type—30 Amp.

BRYANT		With Short Cover		With Long Cover	
		Numbers	Price	Numbers	Price
3	Wire Double Branch—4 Circuit..	72035	\$3.35	82035	\$3.65
G. E. or TRUMBULL		With Cover		Without Cov.	
		G.E.	Trumbull	Price	G.E. Price
3	Wire Single Branch—2 Circuit.	2435	3199	\$1.35	2436 \$.65
3	" Double "—4	2440	4199	1.80	2441 .85

## ENCLOSED CARTRIDGE CUTOUTS OR BASES

## Porcelain Base, 250 Volts

	0-30	31-60	61-100
	Amp.	Amp.	Amp.
Single Pole Main Line Enclosed Porcelain.....	.40	.65	1.20
Double " ".....	.55	1.20	2.30
Triple " ".....	.85	1.65	3.30
Double Pole Single Branch Porcelain.....	.75	1.60	
" Double.....	1.25	3.30	
Triple to Double Pole Double Branch Porcelain.....	1.50	3.80	
Triple Pole Single Branch Porcelain.....	1.30	3.00	
Triple Pole Double Branch Porcelain.....	2.40	5.40	
Single Pole Main Line Cutout Base 600 Volt.....	.70	1.00	1.50

## SLATE BASE

	250 Volt	600 Volt	30 A.	60 A.	100 A.	200 A.	400 A.	600 A.
Single Pole—Slate Base—250 V.....	\$1.25	\$2.10	\$2.10	\$2.10	\$2.10	\$2.10	\$2.10	\$2.10
" " 600 V.....		1.60	2.50	6.00	7.15			

Prices on cutouts do not include fuses

## C-SUNDRIES

## GROUND CLAMPS

	3/4" to 1"	1" to 2"	2" to 3"	3" to 4"
Standard Adjustable Ground Clamps, any make	.12	.15	.20	.35
No. 3	No. 4	No. 5	No. 6	
Blackburn.....	.24	.25	.35	.45
B & B.....				
Other Types				
Chase Shawmut 3660-68	.25	.30	.35	.45
G. V. A Series 5000...	.25	.30	.35	.45

## STRAPS, CLIPS OR CLAMPS

	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/4"	3"
Galv. Straps, 2 Hole	.01	.01	.01	.02	.02	.04	.05
Per Pound.....	.20						
No. Straps per Pound....	45	40	25	20	13	7	5
Light Steel Straps, 1 Hole	.04	.05	.06	.08			
Mail, Iron Clamps, 1 Hole	.06	.07	.08	.11	.18	.25	.45
P & S Conduit Clamps							
With Bolt-Series 1400	.10	.14	.18	.20	.25		
Clips for Loom.....						2c	Each or 3 for 8c

(See Also Page PL-27)

## COLORING &amp; FROSTING LIQUID

	7 ounce	15 ounce	30 ounce	1 Pint	1 Quart
	Cans	Cans	Cans	Bottle	Bottle
Crescent (McGill).....				\$1.25	\$2.50
Celco.....	\$2.50	\$4.00	\$7.50		
Franco.....				1.25	2.25
Permacolor.....				1.65	3.00

These prices apply only to the United States

# PL-10

## Cord & Wire Connectors

## Fuses

### CORD & WIRE CONNECTORS

#### SMALL FIXTURE & WIRE CONNECTORS

Solderless	
Insulated Solderless Wire or Fixture Connectors Similar to "Ideal"	
"Mar" "Sherman" "Simplex" "S.R.K." "Wirelets" "Wiremold" Etc.—each	\$.08
E-Z Insulated Solderless Wire or Fixture Connector.....	.03
Non-insulated Solderless Wire Connectors—2 Screw—All Metal.....	.10

#### SET SCREW CONNECTORS

Round Brass						
Wire Size		No. 12-14	No. 10	No. 8	No. 6	No. 4
Divided Wall—2 Screws.....	"	\$ .06	\$ .08	\$ .09	\$ .10	\$ .14
Hole Thru	4 "	.11	.16	.12	.13	.18
"	2 "			.13	.15	.17
"	4 "					.20
Wire Size		No. 2	No. 1/0	No. 2/0	No. 3/0	No. 4/0
Divided Wall—2 Screws.....	"	\$ .15	\$ .20	\$ .25	\$ .50	\$ .80
Hole Thru	2 "	.20	.24	.30		
"	4 "	.32	.28	.30	.45	.60

#### SOLDERLESS CONNECTORS

##### Dossert, Frankel or Penn-Union

Size Cond.	No. 3 to 1	No. 1/0	No. 2/0	No. 3/0	No. 4/0	No. 250,000	No. 300,000	No. 400,000	No. 500,000
2 Way L's.....	\$0.75	\$0.80	\$1.00	\$1.20	\$1.40	\$1.65	\$1.90	\$2.50	\$2.05
Cable Taps.....	1.05	1.20	1.40	1.75	2.10	2.40	2.85	3.75	4.65
3 Ways & Y's.....	1.05	1.20	1.40	1.75	2.10	2.40	2.85	3.75	4.65
Lugs FB Ang.....	.55	.60	.70	.90	1.10	1.20	1.40	1.85	2.40

#### CORD & MOTOR CONNECTORS

Complete		Body Only		Cap Only	
Arrow	No. Price	No. Price	No. Price	No. Price	No. Price
Midget Arrotex	8239 \$1.00				
Motor Conn.	RP-8221 .75	8221 \$ .65	RP .10		
" " "	RA-8222 .70	8222 \$ .65	RA .15		
" " "	RH-8224 1.30	8224 \$ .85	RH .45		
" " "	RG-8281 1.25	8281 \$ .80	RG .45		
" " "	8334 & 35 1.30	8335 1.30	8334 1.30		
Bryant					
Motor Midget	KT-130 .70	130 \$ .65	KT .10		
Conn.	KG-103 .90	103 \$ .65	KG .30		
GE					
Cord Conn.	1346-1347 .90	1347 \$ .45	1346 .45		
" " "	2719 1.25	1351 \$ .65	2527 .10		
" " "	2715 .75	2720 \$ .05	2721 .45		
" " "		2716 \$ .65	2717 .10		
" " "		1347 \$ .40	1346 .40		
Hubbell					
Cord Connector		5574 \$ .55	5896 .30		
" " "	6116 .75	6118 \$ .65	5964 .10		
" " "		6630 \$ .55	6631 .20		
" " "	6180 .65	6630 \$ .55	6181 .10		
" " "	5518 .80	5574 \$ .55	5420 .25		
" " "		7084 \$ .85	7056 .55		
" " "		7091 1.10	7092 .75		
" " "		6409 \$ .85	6149 .45		
Weber					
Cord Connector	2274 .60	.74	.45	2200 .20	
Wirt					
Cord Connector	56 .55				

NOTE: For Attachment Plugs and other caps—See Pages PL-16 & PL-17

### E-SUNDRIES

#### EXTENSION CORDS—MADE UP

With Plug & Socket, but Guards-Lamps & Handles Extra

Length in Feet	With Reinforced Cord and Key Socket		With Artificial Silk Cord and Key Socket		Twist. or Paral.	
	No. 18 Twisted	No. 18	No. 16	No. 18	No. 16	No. 18
4 Foot.....	\$ .75	\$ .80	\$ .85	\$ .80	\$ .85	\$ .85
6 ".....	.80	.90	.95	.90	.95	.95
8 ".....	.85	1.00	1.05	1.00	1.05	1.05
10 ".....	.90	1.10	1.20	1.10	1.20	1.20
12 ".....	.95	1.20	1.30	1.20	1.30	1.30
14 ".....	1.00	1.30	1.45	1.30	1.45	1.45
16 ".....	1.05	1.40	1.55	1.40	1.55	1.55
18 ".....	1.10	1.50	1.65	1.50	1.65	1.65
20 ".....	1.15	1.60	1.75	1.60	1.75	1.75
22 ".....	1.20	1.65	1.85	1.65	1.85	1.85
24 ".....	1.25	1.75	1.95	1.75	1.95	1.95

Length in Feet	Light		Heavy	
	No. 18	No. 16	No. 18	No. 16
4 Foot.....	\$1.00	\$1.10	\$1.15	\$1.25
6 ".....	1.20	1.30	1.40	1.50
8 ".....	1.35	1.50	1.65	1.75
10 ".....	1.50	1.70	1.90	2.00
12 ".....	1.75	1.90	2.15	2.25
14 ".....	1.90	2.10	2.40	2.50
16 ".....	2.10	2.30	2.65	2.75
18 ".....	2.25	2.50	2.90	3.00
20 ".....	2.40	2.70	3.15	3.25
22 ".....	2.65	2.90	3.40	3.50
24 ".....	2.80	3.10	3.65	3.75

#### ELBOWS & BENDS

##### For Rigid Conduit

Size	1/4"	3/8"	1"	1 1/4"	1 3/4"
Black.....	\$ .14	\$ .18	\$ .28	\$ .38	\$ .51
Galv.....	.16	.21	.32	.43	.58
Size	2"	2 1/2"	3"	3 1/2"	4"
Black.....	\$ .83	\$1.35	\$3.58	\$7.57	\$9.10
Galv.....	.95	1.55	4.08	9.00	10.40

### EXPANSION SHIELDS & ANCHORS

(Ackerman—Johnson—Chicago Expansion Bolt—Diamond—Dryvin—Packtite—Paine—Star or Similar)

Screws Not Included.		Hammer Drive Anchors With Nail	
Expansive Screw Anchors or Caulking	Price	Size of Shield	Price
Size Screw or Bolt			
6-32 Screw.....	\$0.06	1/2"x1 1/4"	\$0.05
8-32 ".....	.07	3/4"x1 1/4"	.06
10-24 ".....	.08	1"x1 1/4"	.07
12-24 ".....	.10	1 1/4"x1 1/4"	.08
1-4x20 Bolt.....	.12	1 1/2"x1 1/4"	.09
5-16x18 ".....	.15	1 3/4"x1 1/4"	.10
3-8x16 ".....	.18	1 3/4"x1 1/4"	.12
7-16x14 ".....	.20	1 3/4"x1 1/4"	.14
1-2x13 ".....	.20	1 3/4"x1 1/4"	.16
5-8x13 ".....	.30	1 3/4"x1 1/4"	.20
		1 3/4"x1 1/4"	.22
		1 3/4"x1 1/4"	.25

#### Multi-Size Screw Anchors

Length of Anchor.....	5 to 10	8 to 14	16 to 20	16 to 20
Price Without Screw.....	\$0.04	\$0.05	\$0.06	\$0.08

#### LAG SCREW ANCHORS (Diamond or Similar)

Size	1/4"	3/8"	1/2"	5/8"	3/4"
Takes Lag Screw.....	\$ .15	\$ .15	\$ .25	\$ .35	\$ .50
Price Without Lag Screw.....	.40	.60	.90	1.00	1.00

### FUSES

#### PLUG FUSES

Standard Plug Fuses—Any Make—\$.07 each or 5 for \$.25  
(Some Manufacturers put these fuses up 4 in a box, in which case they should be retailed at 4 for \$.25.)

#### ENCLOSED FUSES, NON-RENEWABLE

Amps.	Non-Indicating		Indicating	
	Price Each	Fuse	Price Each	Fuse
250 Volts			250 Volts	
600 Volts			600 Volts	
1 to 30.....	\$ .15	\$ .35	\$ .25	\$ .55
35 to 60.....	.25	.50	.40	.85
70 to 100.....	.80	1.15	1.25	1.85
110 to 200.....	1.55	1.95	2.30	3.10
225 to 400.....	2.75	4.20	4.50	6.80
450 to 600.....	4.25	6.15	6.80	9.90
650 to 800.....	8.90	11.15	12.85	17.35

#### RENEWABLE FUSES

Amps.	Fuses		Links	
	250 Volts	600 Volts	250 Volts	600 Volts
1 to 30.....	\$ .50	\$ 1.10	\$ .08	\$ .08
35 to 60.....	1.00	1.25	.05	.06
65 to 100.....	2.00	3.00	.10	.10
110 to 200.....	4.00	5.00	.15	.15
225 to 400.....	7.50	11.00	.30	.30
450 to 600.....	11.00	16.00	.60	.60

#### FUSE WIRE

Size in Amps.....	1/4	1/2	1	2		
Price Per Pound.....	\$66.00	\$6.50	\$3.65	\$2.30		
Price Per Foot.....	.01	.01	.01	.01		
Size in Amps.....	3	5	10	15		
Price Per Pound.....	\$2.00	\$1.50	\$1.50	\$1.30		
Price Per Foot.....	.01	.01 1/2	.02	.02 1/2		
Size in Amps.....	20	25	30	40	50	
Price Per Pound.....	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	
Price Per Foot.....	.04	.05	.07	.08	.10	
Size in Amps.....	60	70	80	90	100	
Price Per Pound.....	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	
Price Per Foot.....	.15	.20	.21	.22	.24	.25

Fuse Strip Any Amperage.....\$1.00 per lb.

Fuse Strip Any Amperage...\$1.00 per lb.

#### OPEN LINK FUSES

##### Small Wire Type

Size in Amps.....	1 to 30	35 to 60	65 to 100
Numbers.....	00-0-1-2-3	2-3-5	5
Price Each.....	\$ .12	\$ .16	\$ .23

##### Large Strip Type

Size in Amps.....	25-100	110-200	225-400
Numbers.....	7	7 to 16	10 to 16
Price Each.....	\$ .23	\$ .30	\$ .60
Size in Amps.....	425-600	600-800	800-1500
Numbers.....	10 to 16	25	40
Price Each.....	\$1.10	\$1.85	\$6.95

#### STAMPED SHEET METAL LINK FUSES

Type of Link.....	B	C	D	E-F-H-I-L-M
C to C Distance.....	1 1/4	2 1/4	3 1/4	See Catalog
Price Each.....	\$ .11	\$ .11	\$ .16	\$ .30

These prices apply only to the United States

Electrical Contracting, August, 1931

### Fittings, Conduit

## THREADED CONDUIT FITTINGS

**STANDARD TYPES, COVERS EXTRA**

"Condulets" "Taplets" "Unilets" "Electrolets" "V. V."  
"Adaptilets" Etc.

Form 7		3/8"	3/4"	1"	1 1/2"	1 3/4"
A		\$ .33	\$ .44	\$ .60	\$ .87	\$ 1.12
B		.40	.50	.70	1.75	2.10
C		.50	.57	.83	1.32	1.71
CO-COV		.70	.91	1.05	1.75	2.25
F		.40	.50	.70	1.12	1.46
F	Form 7	.70	1.12	1.75	3.08	4.40
LFB-LF-LR-LRB		.56	.63	.91	1.47	1.96
LFB-LB-LRB		.56	.63	.91	1.47	1.96
LFB-LB-LR		.91	1.12	1.33	1.75	2.80
PC-PL		1.95	2.20	2.40	.....	.....
PT		2.10	2.30	2.50	.....	.....
PX		2.40	2.65	2.95	.....	.....
T All One Size		2.50	2.80	3.10	.....	.....
TA All One Size		.67	.80	1.12	1.71	2.37
TB-TL-TR		.98	1.05	1.60	2.18	2.80
U-UB		.68	.81	1.12	1.71	2.38
X All One Size		.68	.75	1.10	1.76	2.35
Gaskets		.84	1.09	1.47	1.96	2.50
Reducers		.14	.14	.21	.28	.28
Connectors CCT		.21	.28	.28	.42	.56
Unions U. N. Y.		.40	.42	.49	1.64	1.96
		.65	.75	1.10	1.75	2.65

	Form 7	2"	2½"	3"	3½"	4"
A		\$2.32	\$5.46	\$ 6.50	\$10.60	\$11.70
B		3.65	5.46	7.30	9.10	16.65
C		3.40	6.24	8.10	11.70	14.30
CO-COV		4.45	6.75	10.27	16.38	17.95
E		3.00	5.46	6.50	10.60	11.70
F		7.00	10.66	13.26	23.53	32.50
LB-LF-L-LR-L-LB	Form 7	3.50	6.50	8.45	13.65	15.90
LF-LB-L-LR-LB		3.50	6.50	8.45	13.65	15.90
L-LB-L-LR-LW		3.72	8.52			
T All One Size		3.58	6.50	9.75	14.30	16.90
TA All One Size		5.53	.....			
TB-TL-TR		3.58	6.50	9.75	14.30	16.90
U-UB		4.20	7.80	10.15	16.38	18.75
X All One Size		4.90	7.80	13.00	16.90	20.80
Gaskets		.35	.52	.52	.65	.65
Reducers		.70	1.30	1.76	2.90	3.38
Connectors CCT		3.01	.....			
Unions U. N. Y.		4.10	6.65	11.15	.....	.....

## COVERS

### For Above

			$\frac{1}{8}$ "	$\frac{3}{8}$ "	1"	$1\frac{1}{2}$ "
Porcelain Covers with Holes.....	\$ .14	.21	\$ .35	\$.51		
Composition " " .....	.28	.42	.70	1.40		
" Blank.....	.42	.66	.84	1.54		
Porcelain " For Drop Cord.....	.49	.66	.....	.....		
Weatherproof.....	.22	.35	.....	.45		
Metal Covers Blank Sheet Steel.....	.12	.16	.33	.45		
" Cast Iron.....	.21	.31	.49	.70		
" with $\frac{1}{4}$ " Nipple.....	.28	.38	.59	.....		
" " $\frac{3}{8}$ " ".....	.33	.40	.54	.....		
" " $\frac{1}{2}$ " ".....	.38	.43	.56	.....		
	$\frac{1}{8}$ "	2"	$2\frac{1}{2}$ " & 3"	$3\frac{1}{2}$ " & 4"		
Porcelain Covers with Holes.....	\$ .57	\$ .84	\$1.12	\$1.26		
Composition " " .....	1.55	1.68	.....	.....		
" Blank.....	1.68	1.96	4.46	6.30		
Porcelain " For Drop Cord.....	.....	.....	.....	.....		
Weatherproof.....	.....	.....	.....	.....		
Metal Covers Blank Sheet Steel.....	.63	.79	1.10	1.10		
" Cast Iron.....	.98	1.26	1.61	1.75		
" with $\frac{1}{4}$ " Nipple.....	.....	.....	.....	.....		
" " $\frac{3}{8}$ " ".....	.....	.....	.....	.....		
" " $\frac{1}{2}$ " ".....	.....	.....	.....	.....		

## RECEPTACLES & ROSETTES

### For Above

Plug Receptacles	10 Amp.	2 Pole	250 Watt.	\$ .56	\$ .63	1 <sup>00</sup>
"	15 "	2 "	125 "	"	.63	.70
"	20 "	2 "	250 "	.77	.84	.91
"	15 "	3 "	250 "	.84	"	"
"	20 "	3 "	250 "	.10	1.20	"
Lamp Receptacle	660 Watt	with Shade Holder.		.42	.49	.56
Cord Rosette	"	"		.42	.49	.56

**FS SERIES FOR FLUSH DEVICES**  
Shallow Type Without Covers, Any Make

No. Gangs	No. Pipe	Series	3/4"	1/2"	1"
Single Gang	One	FS-FSA	\$ .91	\$1.05	\$1.19
"	Two	FSC-FSL-FSR- FSLA-FSS-FSAA	1.05	1.26	1.54
"	Three	FSCA-FSCC- FSCT-FST	1.40	1.75	2.03
"	Four	FSX-FSCD	1.68	2.10	2.38
Two Gang	One	FS-FSA	1.68	1.82	1.96
"	Two	FSC-FSS	1.82	1.96	2.17
"	Three	FSD	2.03	2.17	2.31
2 Gang Tandem	One	FS	2.31	2.45	2.59
"	Two	FSC	2.45	2.59	2.73
Three Gang	One	FS-FSA	.....	2.82	2.73
"	Two	FSC	.....	2.66	2.87
"	Four	FSD	2.73	3.01	3.35
"	One	FS-FSA	.....	3.06	3.36
Four Gang	Two	FSC-FSSE	.....	3.29	3.50
"	Five	FSD	3.44	4.00	4.34

### COVERS FOR FS FITTINGS

[illegible]

### COMBINATION COVERS FOR FS SERIES

2	Gang for One Switch and one	Sgle. or Duplex Receptacle.....	\$ .70
2	" " " "	" " " " " " " " " " " "	1.75
2	" " " " " "	Bull's Eye with Jewel .....	1.05
2	" " " " " "	One lift cover Receptacle .....	

## RECEPTACLES & PLUGS

Type	3 Pole, 250 Volt D. C.		— 600 Volt A. C.		Style 1	
Crouse-Hinds or Similar	15 Amp.	15 Amp.	30 Amp.	30 Amp.	60 Amp.	60 Amp.
QEE Receptacle	1 <sup>1</sup> / <sub>2</sub> "	1 <sup>1</sup> / <sub>2</sub> "	1 <sup>1</sup> / <sub>2</sub> "	1 <sup>1</sup> / <sub>2</sub> "	1 <sup>1</sup> / <sub>2</sub> "	1 <sup>1</sup> / <sub>2</sub> "
QEE	\$10.20	\$10.35	\$10.45	.....	.....	.....
A	10.10	10.20	10.35	.....	.....	.....
QJ	.....	.....	.....	\$20.80	\$20.95	\$22.55
A	.....	.....	.....	19.95	20.10	22.20
CP	.....	.....	.....	.....	.....	22.35
Watertight Plugs	9.70	9.70	9.70	15.45	15.45	17.60

**G & H WITHOUT ADJUSTABLE BAR**

Type Crouse Hinds or Similar	5 Amp.			10 Amp.		
	1/2"	3/4"	1"	1/2"	3/4"	1"
GL.....	\$ .56	\$ .70	\$1.05	\$ .70	\$ .91	\$1.19
GL.....	.63	.77	1.12	.77	.98	1.28
GA-GLA-GT.....	.84	.98	1.33	.98	1.19	1.50
GT-GX-GXA.....	1.05	1.19	1.65	1.19	1.40	1.82
H.....	.42	.56	.91	.56	.77	1.05
HA.....	.45	.63	.98	.63	.84	1.19
HH.....	.63	.77	1.05	.77	.91	1.19
HHC.....	.84	.98	1.33	.98	1.19	1.50
HLA.....	.63	.77	1.12	.77	.98	1.28

**G & H WITH ADJUSTABLE BAR**

Type	5 Amp.			10 Amp.		
Crouse Hinds or Similar	$\frac{3}{16}$ "	$\frac{3}{8}$ "	1"	$\frac{3}{16}$ "	$\frac{3}{8}$ "	1"
G.....	\$.77	\$.91	\$1.26	\$.91	\$1.12	\$1.40
GL.....	.84	.98	1.33	.98	1.19	1.50
GA-GLA-GT.....	1.05	1.19	1.54	1.19	1.19	1.68
GTA-GX.....	1.26	1.40	1.89	1.40	1.61	2.08
GXA.....	1.50	1.71	2.17	1.71	1.82	2.31
H.....	.83	.77	1.12	.77	.98	1.30
HA.....	.70	.84	1.19	.84	1.05	.35
HH.....	.77	.91	1.26	.91	1.12	1.40
HHC.....	1.05	1.19	1.54	1.19	1.40	1.68
HLA.....	.84	.98	1.36	.98	1.19	1.50

### COVERS FOR G & H SERIES

Description	For G & H Fittings Without Adjustable Bar		For G & H Fittings With Adjustable Bar 5 & 10	
	5 Amp.	10 Amp.	20 Amp.	Amp. 20 Amp.
Porcelain Cover with Wire Holes . . .	\$ .28	\$ .35	\$ .56	\$ .71
Blank Sheet Steel Cover . . . . .	.21	.38	.35	.14
" " Cast " " " "	.35	.42	.56	.28
Sheet Steel with 1/4" Brass Nipple . .	.35	.42	.49	.28
" " " 3/8" " " " "	.42	.49	.56	.35
" " " 1/2" " " " "	.50	.56	.63	.42
" " " 3/4" " " " "	.56	.63	.70	.50
Receptacle Covers No Shadeholder . .	.70	.70	.	.
" " With " " " "	1.12	.	.	.

## DEVICES FOR G & H SERIES

Lamp Receptacles one piece with or without Shadeholder Groove.....	\$ .35
" " two " " " "	.70
" " " " without " " " "	.63
Cord Rosette Porcelain Composition .....	.66
" " " " " " " "	.70

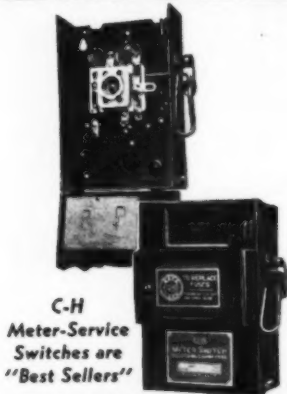
## J & K SERIES WEATHERPROOF

	1/2"	3/4"	1"
A-JB-JU.....	\$ .84	\$1.05	\$1.50
L.....	.98	1.19	1.01
T.....	1.19	1.33	1.50
X.....	1.33	1.50	1.61
K.....	1.50	1.61	1.81
K.....	.70	.91	1.21
K-KB-KC-KD.....	.84	1.05	1.50

*These prices apply only to the United States*



## YOU CAN'T FILL ORDER BOOKS ON "EMPTY" SALES TALK



**C-H  
Meter-Service  
Switches are  
"Best Sellers"**

The C-H "Safe-Lock" Meter Service Switch (Bul. 4325), Meter-test type with accessible main fuses, 30 ampere size has test disconnects on load side; larger sizes have both line and load side disconnects. Available with end walls and shutters for all standard watt-hour meters. "U" shaped twistouts for banking troughs. Ample wiring space in case; concentric knockouts in various sizes. Sliding door in cover cannot be opened until switch lever is thrown to "Off" position. Made in Plug or Cartridge Fuse types in sizes from 30 to 400 amperes, 2 and 3 pole.

**Y**OUR customers want specific, definite advantages. That is the only way you can sell these days. And here are exactly that kind of sales features, for the Cutler-Hammer Line of wiring and Control Devices is rich with talking points. Here are Meter Service Switches, Safety Switches and Wiring Devices with sales advantages that stand out like quills on a porcupine.

More than that, the Cutler-Hammer name is intelligently and aggressively advertised and merchandised . . . constantly making new friends . . . paving the road for you . . . clearing sales resistance from your path. That's the kind of help that means money to the contractor—for example, the 1930 sales on Cutler-Hammer Wiring Devices equalled the 1929 sales in spite of the 50% drop in building activity last year.

The engineers who are responsible for C-H Safety Switches, Meter Service Switches and Wiring Devices have gained their knowledge from nearly 40 years' face-to-face experience with the entire field of Electrical Control. They bring you advantages which could be learned only in contact with other fields; they bring you

new standards of performance and sturdiness all of which you can sell, to your own profit.

You can get Cutler-Hammer Wiring Devices, Safety Switches and Meter Service Switches from most established independent wholesalers in leading cities. It is a good line to grab hold of in stormy weather, and just as good when times are booming. **CUTLER-HAMMER, Inc.,** *Pioneer Manufacturers of Electrical Apparatus*, 1258 St. Paul Avenue, Milwaukee, Wisconsin.

### New! C-H Duplex Flush Receptacle—full of sales-making advantages



The new C-H 7942 Duplex Flush Receptacle is outstanding in appearance and design. Body is highly polished, genuine bakelite. New patented finding ring permits easy insertion of plug. Entirely new contact design: pressure is supplied by auxiliary steel spring carrying no current and assuring positive uniform pressure over entire contact area. Design insures freedom from burning or pitting. Heavy mounting strap with reinforced channel back, keyed to bakelite body prevents shifting. Two large binding screws at each terminal. These features, together with extremely shallow construction, the absence of lettering on the surface, improved type of plaster lugs, impregnated back plate, etc., insure easy operation, long life, and trouble-free performance.

# CUTLER HAMMER

*Wiring Devices and Safety Switches for Every Service*

(A-3988)





**THEY'LL INVEST  
IN BETTER BUSINESS**

*write for Inland's*  
**NEW PLAN FOR SELLING  
COMMERCIAL LIGHTING**



**THE LA SALLE**  
*Moderne*

**IN  
"SNOW  
WHITE"  
GLASS**

Scientific tests prove that when a retail store installs modern lighting, the sales and profits of that store are increased.

Mr. Electrical Contractor, when you sell commercial lighting you are actually selling better business. Retail stores will invest in better business. You have to tell them your story.

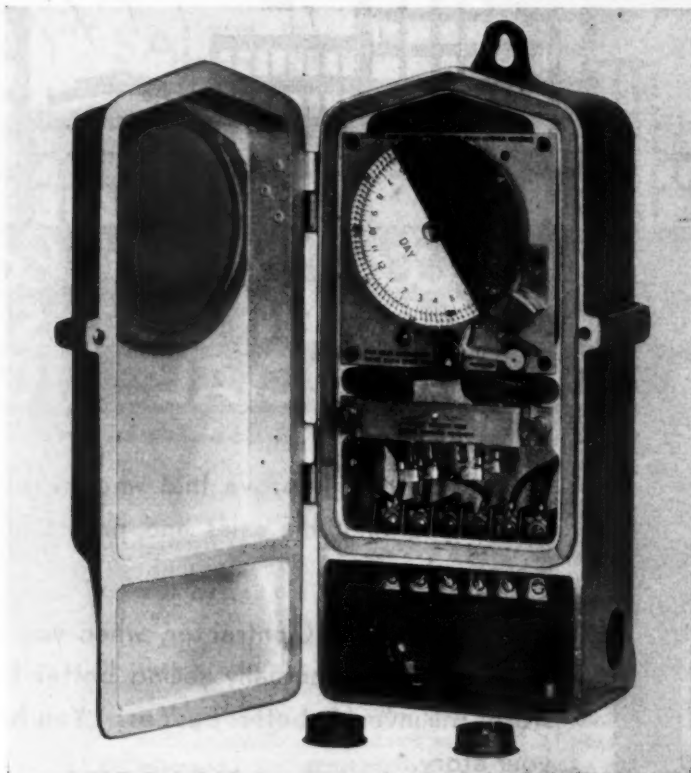
Inland has made easy the job of telling the story to stores, shops, etc. Inland has prepared a complete advertising and sales campaign for you to use in selling commercial lighting.

Write today for booklet describing the Inland Glass plan and commercial lighting campaign.

**INLAND GLASS WORKS, Inc.**  
CHICAGO

**Inland**

# SANGAMO TIME-SWITCHES



ACCURATE TIME....ELECTRIC WINDING  
MODERATE COST....LOW UPKEEP

The Sangamo Time-Switch is the product of combined facilities of two American manufacturers—each a leader in its field—Sangamo, makers of Meters, and Hamilton, manufacturer of the "Watch of Railroad Accuracy."

The Sangamo Time-Switch embodies these features:

- 1...Accurate dependable time...insured by the standard Sangamo clock-movement with Hamilton 11-jewel Escapement having a micrometer adjustment, and fully protected by dust-cap.
- 2...Electric Winding...The switch mechanism is operated by a clock-mainspring, kept wound by a Sangamo motor which is continually in circuit. Because of ample reserve

power, the switch is unaffected by current interruptions.

3...Mercury tube contacts of latest design, shown by tests to be absolutely dependable in service.

4...Independent of frequency or voltage variations.

5...Made for either a. c. or d. c. operation.

6...Low maintenance cost...simple, sturdy design assures trouble-free operation. All parts interchangeable.

For medium-priced installations as well as costly ones, wherever a sturdy and thoroughly dependable time-switch is required...specify Sangamo. Available with meter terminal base or conduit-connected base.

Write for descriptive folder giving complete details.

SANGAMO ELECTRIC COMPANY • SPRINGFIELD, ILLINOIS

# GET IN WITH RADIO OUTLETS

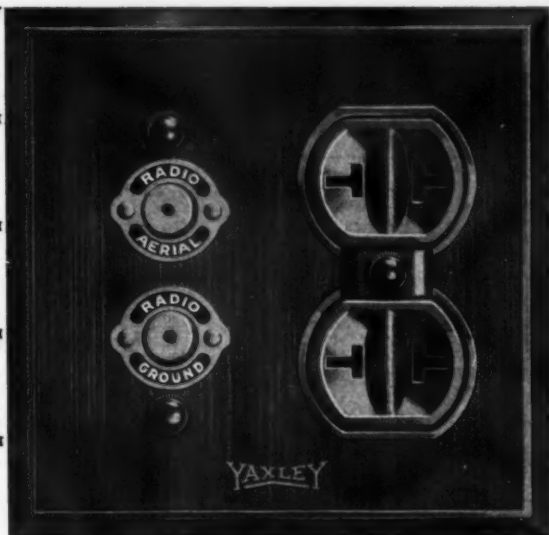
For More  
Wiring  
Business  
at a  
Bigger  
Profit

Tie into the late Summer and early Fall house wiring campaigns with a strong push on radio outlet installations.

The fellows who are featuring radio outlet wiring are getting in where the doors are closed to other selling efforts.

And a surprisingly large number of other installation jobs result from getting in with radio outlets.

In addition to a prospect for two or more radio outlets in every residence that owns a radio set, there is a big and growing field in apartment buildings, hotels, hospitals, schools and clubs. And the busy season is just setting in.



## YAXLEY

No. 241

## Radio Electric Outlet

An Extra Electrical Receptacle for Attaching Lamp or Other Appliance.

Elimination of Danger of Making Wrong Connections.

Convenience and Safety in Grouping All Connections Compactly with One Wall Plate.

All Parts Carried on Mounting Strap with Ears for Fastening to Standard Wall Box or Plaster Lath.

Standard Wall Plates Match Other Electrical Outlets.

SEND FOR

RADIO

CONVENIENCE

OUTLET CATALOG

# YAXLEY MFG. CO.

1528 West Adams Street,  
Chicago, Illinois

RADIO CONVENIENCE OUTLETS FOR EVERY RADIO NEED  
RHEOSTATS—VOLUME CONTROLS—RESISTANCES—JACKS—PHONE PLUGS—SWITCHES

### Fittings, Conduit

Lamp Receptacle S. H. Groove.....	\$ .63
No S. H. Groove.....	.56
Plug Receptacle 10 & 15 Amp.....	.70
" " 20 ".....	.91
" " 10 " 3-wire.....	.98
Cord Rosette.....	.49
Blank Cast Cover.....	.42

## Adapti Crouse-Hinds or Similar

		Form 75		
		1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>
V-VA & VDA	as above	\$5.85	\$5.92	\$6.00
VC & VL	"	5.98	6.11	6.24
VE-VG & VT	"	6.17	6.30	6.56
VX	"	6.30	6.58	6.76
VD	"	6.37	6.50	
VD & VJ	"	6.70	6.87	7.00

		Form 200		
		1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>
V-VA & VDA	as above	\$7.02	\$7.09	\$7.16
VC & VL	"	7.18	7.28	7.35
VE-VG & VT	"	7.28	7.50	7.63
VX	"	7.41	7.57	7.87
VD	"	7.47	7.60	
VD & VJ	"	7.67	7.80	7.93

	Form 75	Form 200
Globes only, clear glass.....	\$1.12	\$1.12
"    "    opal.....	2.38	2.38
"    "    green, high grade.....	2.98	2.98
"    "    ruby.....	3.30	4.00
Guards Cast Aluminum.....	2.52	3.15
Half Shades.....	1.68	2.45
Receptacle with Gasket.....	.56	.56
Reflector Holder Cast Aluminum.....	.91	.91
Adaptor.....	1.05	1.25

## Crouse-Hinds Cat. 2200 Page 56

Adapti Bulletin 107E Page 19B

ture with Recep. Globe and Gu

Pendant or Bracket Fixture with Recep. Globe and Guard Form	75....	\$7.93
" " " " " " " " " "	200....	8.84

## STANDARD TYPES

**"Kondu" "Adaptilets" "Appleton" Crouse-Hinds or Similar**

Size—	1/4"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"
A Covers Extra	\$0.46	\$0.62	\$0.84	\$1.50	\$2.10	\$3.70	\$5.85	\$10.55	\$16.00	\$18.45
B "	.53	.70	.95	2.40	3.10	5.05	8.85	11.35	14.50	23.45
C "	.74	.94	1.33	2.55	3.65	6.25	12.90	16.05	22.40	27.65
CO "	.96	1.25	1.80	3.00	4.20	7.85	.....	.....	.....	.....
L "	.53	.67	.94	1.75	2.40	4.40	8.85	10.55	16.00	18.45
L-B-L-L-L-R	.81	.98	1.40	2.75	3.90	6.30	13.15	16.45	24.40	29.00
L-B-L-R	1.25	1.65	2.30	.....	.....	.....	.....	.....	.....	.....
T&TB All 1 Size	1.05	1.35	1.85	3.60	5.35	7.80	16.45	21.75	30.30	36.90
TA " " 1 "	1.45	1.85	2.40	.....	.....	.....	.....	.....	.....	.....
T " " " " " "	1.65	2.35	3.30	.....	.....	.....	.....	.....	.....	.....
U-B "	.90	1.10	1.60	3.00	4.35	7.00	.....	.....	.....	.....
X " All One Size	1.35	1.80	2.45	4.50	6.45	10.50	.....	.....	.....	.....

Unions Thick Walls	\$0.40	\$0.55	\$0.85	\$1.25	\$1.75	\$3.50	\$5.25	\$7.90	\$10.55	\$15.80
Thin	.30	.45	.70	1.10	1.45	2.95				
Conn. Thick	.30	.40	.80	1.00						
Thin	.25	.35	.65							
UCT Adapter	.10	.15	.20							

### For Flush Devices

Type	1/4"	One Gang 3/4"	1"	Two Gang 1/4"	Two Gang 3/4"	Three Gang 3/4"	Four Gang 3/4"
FS	\$1.05	\$1.25	.....	\$1.80	\$2.05	\$2.75	\$3.30
FSA	1.05	.....	.....	.....	.....	.....	.....
FSC	1.30	1.60	\$2.05	2.10	2.30	3.10	3.70
FSD	.....	.....	.....	2.40	2.75	.....	.....
FSL-FSR	1.30	1.60	.....	.....	.....	.....	.....
FSA	1.30	.....	.....	.....	.....	.....	.....
FSC	1.75	2.30	2.75	.....	.....	.....	.....
FSX	2.15	3.00	3.45	.....	.....	.....	.....

		With Adjustable Bar	Without Bar
G	Form 5	1 1/2" \$1.00	\$0.80
		3/4" 1.25	1.05
	Form 10	1 1/2" 1.15	.95
		3/4" 1.50	1.25

J	$\frac{1}{2}''$	\$1.10
	$\frac{3}{4}''$	1.40
K	$1\frac{1}{2}''$	.85

**Note.**—Threadless Fittings for Rigid Conduit and Metallic Tubing (Thin Wall) are the same price.

Covers, Gaskets and Wiring Devices same price as Threaded, on page PL-11 and 12.  
Fittings for Thin Wall Conduit are Only Made Up to and Including 2".

	Large End	3 1/2"	1"	1 1/2"	1 3/4"	2"
Small End	1 1/2"	\$ .40	\$ .55	\$ .70	\$ .80	\$1.05
"	1 3/4"	...	.60	.75	.90	1.20
"	1"	...	...	.80	.95	1.30
"	1 1/2"	...	...	...	1.15	1.45
"	1 3/4"	...	...	...	...	1.50

**FITTINGS, SPRAGULETS, WIRELETS  
OR T & B**

**BRANCH TYPE**  
**Series 48**

Description	G.E. Steel City or T & B Numbers	Price Each
Branch Box Rectangular for $\frac{1}{2}$ & $\frac{3}{4}$ " Conduit....	SP-48241	\$ .25
Cover Metal Flat Closed.....	SP-48C1	10
" " " with $\frac{1}{2}$ " Knockout.....	SP-48C6	10
" " " Pendant Type with $\frac{1}{2}$ " Bushing.....	SP-48C8	12
" " " Pendant Type with $\frac{3}{4}$ " Bushing.....	SP-48C11	15
" " " with $\frac{1}{2}$ " Male or Female Nipple.....	SP-48C22 & 23	10
" " " with $\frac{3}{4}$ " Male or Female Nipple.....	SP-48C24 & 25	10
Cover Porcelain with one or two wire Holes.....	SP-48C75 & 76	14
" " " three or four wire Holes.....	SP-48C77 & 78	15

### SHALLOW TYPE Series 14

Description	G.E. Steel City or T & B Numbers	Price Each
Body Octagonal Shape for $\frac{1}{8}$ " or $\frac{3}{16}$ " Conduit.....	SP-14241	\$ .35
Cover Metal Flat Closed.....	SP-14C1	.10
" Raised with $\frac{1}{8}$ " Knockout.....	SP-14C7	.12
Cover Metal Flat Pendant with $\frac{1}{8}$ " Bushing.....	SP-14C8	.12
" " " "	SP-14C11	.11
" " with $\frac{1}{8}$ or $\frac{3}{16}$ Male Nip.....	SP-14C22-24	.30
" Raised for all Surface Mounted Devices.....	SP-14C2	.12
" Raised for Sign Receptacles.....	SP-14C31-34-35-36	.12
" Flat for all Fluted Devices.....	SP-14C39	.35
" Porcelain with one or two holes.....	SP-14C75 & 76	.10
" Three or Four Holes.....	SP-14C77 & 78	.10

**DEEP TYPE**  
Series 34

Description	G. E., Steel City and T & B Numbers	Price Each
Body Deep Octagonal Shape $\frac{1}{4}$ " & $\frac{3}{4}$ "	SP-34461	\$4.40
Cover Metal Blank Flat	SP-3441	1.10
Cover Metal For "Push Button Switch"	SP-3442	1.10
" " "Single Receptacle	SP-3445	1.10
" " "Standard Duplex Receptacle	SP-3447	1.10
" " "For GE 30 AMP. Polarized Plug Recept.	SP-34413	1.10
" " "GE Tumbler Switches	SP-34414	1.10
" " "Hubbell and H&H Tumbler Switches	SP-34415	1.10

SP-1410 Complete Coupling for $\frac{1}{2}$ " Conduit.....	Price \$1.10
SP-1420 " " " $\frac{1}{4}$ " " .....	.20

### FITTINGS, ENTRANCE OR SERVICE

## "ADAPTI"

Ent. Ells with Cov. Ser. 1100.....	1½"	¾"	1"	1¼"
" Fitt. with Cov. Ser. 2700.....	\$4.45	\$5.50	\$6.00	\$11.00
Angle Ent. Fitt. with Cover Ser. 2700.....	.45	.55	.65	1.10
Signal Ent. Caps No. 2810-2811.....	.75	.80	.65	1.20
	1½"	2"	2½"	3"
Ent. Ells with Cov. Ser. 1100.....	\$1.55	\$3.00	\$4.25	\$7.00
" Fitt. with Cov. Ser. 2700.....	1.85	3.00	46.25	57.65
Angle Ent. Fitt. with Cov. Ser. 2700.....	1.85	3.00	0.30	7.25
Signal Ent. Caps No. 2810-2811.....				

*These prices apply only to the United States*

*Electrical Contracting, August, 1931*



## FITTINGS, ENTRANCE OR SERVICE—Continued

## "APPLETON"

	1/2"	3/4"	1"	1 1/4"
FEB Elbow with Cov. 1700 & 1900.....	\$ .50	\$ .60	\$ .70	\$1.70
FB Elbow with Cov. 1713 to 16.....	.35	.50	.60	.....
FC End Fitt. with Cov. 1723-33-43.....	.20	.25	.30	.....
AY Angle Fitt. 1950 to 54.....	.50	.55	.70	1.85
LAY End Fitt. with Cov. 1790 to 94.....	.45	.50	.60	1.10
MF Reversible Fitt. 3200-3230.....	.45	.55	.75	1.30

## "BEND HICKS"

	1/2"	3/4"	1"	1 1/4"
Bend Hicks Galvanized.....	\$ .50	\$ .60	\$ .65	\$1.75
	1 1/2"	2"	2 1/2"	3"
Bend Hicks Galvanized.....	\$2.15	\$4.10	\$6.60	\$8.25

## "CAP-SWIVEL-LET"

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
"A" Inside Work #1010 to 1064.....	\$0.20	\$0.25	\$0.30	\$0.55	\$0.85	\$1.30
"BW" Threadless Fitt. 4112-4134.....	.45	.50	.75	.....	.....	.....
"BW" Threaded Fitt. 2112-2124.....	.35	.45	.....	.....	.....	.....
"FW" Outside Work 1412-1464.....	.40	.50	.65	1.05	1.80	3.00
"LB" Service Entrance 3110-3130.....	.50	.55	.65	.....	.....	.....
Type "AM" for Nipple 1/2" Long.....	\$0.20	For Nipple 1 1/4" Long.....	\$0.25	.....	.....	.....
Type "BXA" from 1600 to 1613.....	.20	From 1614-1624.....	.30	.....	.....	.....
From 1632-1634.....	.35	.....	.....	.....	.....	.....

## "CONDULETS"—Form 6

	1/2"	3/4"	1"	1 1/4"
F Type Ent. Fitt. with Porc. Cov.....	\$ .40	\$ .45	\$ .60	\$ .95
LB Type Ent. Fitt. with Metal Cov.....	.45	.50	.60	1.15
	1 1/2"	2"	2 1/2"	3"
F Type Ent. Fitt. with Porc. Cov.....	\$1.60	\$2.85	.....	.....
LB Type Ent. Fitt. with Metal Cov.....	1.40	2.45	.....	.....

## "ELECTROLETS"

	1/2"	3/4"	1"	1 1/4"
FB Angle Fitt. with Cov. 713-83.....	\$ .40	\$ .45	\$ .50	\$ .80
KA End Fitt. with Cov. 1013 to 43.....	.15	.20	.25	.35
SLB Elbow Fitt. with Cov. 1 to 4.....	.40	.45	.50	.80
Y Capped Elbow Y1 to 5.....	.40	.50	.60	1.65
	1 1/2"	2"	2 1/2"	3"
FB Angle Fitt. with Cov. 713-83.....	\$1.90	\$3.00	\$6.60	\$9.50
KA End Fitt. with Cov. 1013 to 43.....	.....	.....	.....	.....
SLB Elbow Fitt. with Cov. 1 to 4.....	.....	.....	.....	.....
Y Capped Elbow Y1 to 5.....	.....	.....	.....	.....

## "GENERAL ELECTRIC"

	1/2"	3/4"	1"	1 1/4"
With Covers				
Ent. Caps Series 1525 to 1534.....	\$ .45	\$ .55	\$ .70	\$ .95
Capped Elbow Series 1470 to 1472.....	.45	.50	.60	.....
Capped Elbow Series 1480 to 1484.....	.60	.55	.70	1.85
Insulets Series 1610 to 1612.....	.20	.25	.30	.....
Insulets Angle Series 1640 to 1642.....	.30	.40	.50	.....
Entrance Ells 1490 to 1495.....	.40	.45	.55	1.00
	1 1/2"	2"	2 1/2"	3"
With Covers				
Ent. Caps Series 1525 to 1532.....	\$1.60	\$2.75	\$5.90	\$10.90
Capped Elbow Series 1470 to 1472.....	.....	.....	.....	.....
Capped Elbow Series 1480 to 1484.....	2.25	.....	.....	.....
Insulets Series 1610 to 1612.....	.....	.....	.....	.....
Insulets Angle Series 1640 to 1642.....	.....	.....	.....	.....
Entrance Ells 1490 to 1495.....	1.55	3.00	8.35	10.50

## GEE-VEE

	1/2"	3/4"	1"	1 1/4"
F Service Cap Series 6000.....	\$ .45	\$ .50	\$ .70	\$1.00
F Pipe " " 16000.....	.45	.50	.70	1.75
F Pipe " " 1000-1310.....	.40	.50	.75	.85
B " " 2000 & 2100.....	.40	.45	.65	.75
FB Universal " 3000.....	1.00	1.25	1.65	2.75
Weathercap " 40122.....	.30	.30	.....	.....
Service Elbow " 19000.....	.45	.50	.60	1.10
Endo Terminal Series 90000.....	.15	.20	.25	1.05
Endo with Male Thread Series 70000.....	.25	.35	.50	.....
Endo for Armored Cable 31143.....	.....	.....	.....	.....
No. 14-2 or No. 12-3 Wire.....	.30	.....	.....	.....
Endo for Armored Cable				
Series 30000, Nos. 14 and 12 wire, \$.15; No. 10 wire, \$.30; No. 6 wire, \$.45				
SEG Service Elbow Series .400-1/2"x1/2", \$.70; 1/2"x1/2", \$.15; 1/2"x1/2", \$.15				
	1 1/2"	2"	2 1/2"	3"
F Service Cap Series 6000.....	\$1.90	\$3.35	\$7.60	\$9.25
B " " 16000.....	1.90	3.35	7.60	9.25
F Pipe " " 1000-1310.....	1.20	1.75	3.00	4.15
B " " 2000 & 2100.....	1.05	.....	.....	.....
FB Universal " 3000.....	8.75	8.40	12.70	.....
Weathercap " 40122.....	.....	.....	.....	.....
Service Elbow " 19000.....	2.75	3.60	.....	.....
Endo Terminal " 90000.....	1.40	2.40	4.55	7.40

## "TAPLETS"

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
AR End Fitt. with Bushing.....	\$ .40	\$ .55	\$ .70	\$ .90	\$1.30	\$1.70	\$2.30	\$5.60
BF Angle Fitt. with Covers.....	.35	.55	.65	1.20	.....	.....	.....	.....
FA End Fitt. with Covers.....	.15	.20	.....	.....	.....	.....	.....	.....
FB End Fitt. with Covers.....	.30	.45	.....	.....	.....	.....	.....	.....
FF Service Fitt. with Covers.....	.40	.45	.65	1.00	1.70	2.95	6.25	7.65
FH Service Fitt. with Covers.....	.85	1.05	1.50	1.90	3.05	4.90	11.50	12.65
SE Service Elbow with Covers.....	.95	1.10	1.25	1.90	2.50	4.20	8.45	9.80

## T &amp; B

	1/2"	3/4"	1"	1 1/4"
Ent. Cap 1525-32 with Cover.....	\$ .40	\$ .50	\$ .65	\$1.00
Capped Elbow 1470-84 with Cover.....	.50	.60	.70	1.95
Insulets 1610-11-12 with Cover.....	.15	.20	.25	.....
Angle Insulets 1640-1-2 with Cover.....	.30	.45	.60	.....
Cable Insulets 2000 with Cover.....	.15	.....	.....	.....
	1 1/2"	2"	2 1/2"	3"
Ent. Cap 1525-32 with Cover.....	\$1.70	\$2.95	\$7.55	\$9.25
Capped Elbow 1470-84 with Cover.....	2.30	.....	.....	.....
Insulets 1610-11-12 with Cover.....	.....	.....	.....	.....
Angle Insulets 1640-1-2 with Cover.....	.....	.....	.....	.....
Cable Insulets 2000 with Cover.....	.....	.....	.....	.....

## "V. V."

	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Type 2 Term. Fitt. with Cov.....	\$ .60	\$ .80	\$1.05	\$1.65	\$2.15	\$3.85	.....	.....
Type 6 Term. Fitt. with Bush.....	.40	.55	.70	.90	1.30	1.70	2.30	5.60
Type 9 Term. Fitt. with Cov.....	.70	1.05	1.40	2.80	4.20	7.00	12.65	15.45
F with Porc. Cover.....	.40	.45	.60	.85	1.60	2.75	6.95	8.55
FAB with Porc. Cover.....	.25	.40	.45	.85	1.15	2.35	3.80	5.35
FC Pipe End Porc. Cover.....	.15	.20	.25	.....	.....	.....	.....	.....
FCBX with Cover.....	.15	.....	.....	.....	.....	.....	.....	.....
FL with Cast Cover.....	.40	.55	.65	1.15	1.35	2.45	.....	.....
Y Bend Hick.....	.50	.60	.65	1.75	2.15	4.10	.....	.....

## FITTINGS, "ADAPTI"

## ROUND "ADAPTI" BOXES

Series Numbers	Style	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"
No. 2900 to 2908..	1 Back Outlet	\$ .40	\$ .46	\$ .60	\$1.05	.....	.....
No. 3100 to 3105..	" Side "	.40	.46	.60	1.05	\$1.80	\$2.40
No. 3100T & 3101T	Threadless	.....	.....	.....	.....	.....	.....
No. 3170 to 3175..	" " "	.48	.55	.....	.....	.....	.....
No. 3200 to 3205..	2 " " "	.46	.53	.66	1.15	1.85	2.40
No. 3200T & 3201T	Threadless	.48	.55	.73	1.25	2.11	2.75
No. 3270 to 3275..	" " "	.60	.67	.....	.....	.....	.....
No. 3270T & 3271T	Threadless	.60	.67	.98	1.40	2.25	2.85
No. 3300 to 3305..	" " "	.58	.60	.85	1.34	2.20	2.80
No. 3300T & 3305T	3 " " "	.64	.75	.98	1.60	2.65	3.00
No. 3300T & 3305T	Threadless	.....	.....	.....	.....	.....	.....
No. 33170 to 33175	" " "	.80	.92	.....	.....	.....	.....
No. 3400 to 3405..	" " "	.70	.82	1.05	1.70	2.70	3.05
No. 3400T & 3405T	4 " " "	.80	1.00	1.20	1.85	2.85	3.30
No. 3500 to 3705..	2 " " "	.58	.60	.73	1.40	2.25	3.30
No. 3800 to 3905..	3 " " "	.53	.60	.80	1.40	2.25	3.30
No. 3900 to 4105..	2 " " "	.80	.93	1.05	1.75	2.85	3.95
No. 4800 to 5005..	4 " " "	.93	1.05	1.32	1.90	3.80	4.65

## PARTS For Above Boxes

Series No.	Description	1/2"	3/4"	1"
500-501-502	Base Only	\$ .27	\$ .27	\$ .54
500X-501X	Extension Ring	.27	.27	.40
501A	Base Concealed to Expd.	.66	.66	.66
0500	" with Tapped Boss	.33	.33	.....
510 to 512	Base	.40	.40	.80
520 to 522	"	.27	.27	.52
30 to 35	Metal Side Plates	.14	.14	.20
40 to 42	Insulated Side Plates	.16	.16	.33
50 to 54	Arm. Flex. Side Plates	.33	.40	.43
60 to 65	Angle Outlet	.18	.22	.42
70 to 75	Elbow Outlet	.22	.29	.50
90 to 95	Connecting Outlet	.26	.....	.33
100 & 101	Straight for No. 500 Base	.16	.22	.....
110 to 113	" " No. 501 "	.26	.33	.42
120 to 125	" " No. 502 "	.46	.53	.66
130 to 135	" " No. 503 "	1.05	1.32	1.60
140 to 145	" " No. 504 "	2.65	3.05	3.45
300 & 301	Threadless Outlet	.20	.25	.....
310 & 311	"	.33	.40	.....
Series No.	Description	1 1/2"	2"	2 1/2"
500-501-502	Base Only	\$ .54	\$1.08	\$1.08
500X-501X	Extension Ring	.40	.....	.....
501A	Base Concealed to Expd.	.66	.....	.....
0500	" with Tapped Boss	.....	.....	.....
510 to 512	Base	.80	1.60	1.60
520 to 522	"	.52	1.08	1.08
30 to 35	Metal Side Plates	.20	.33	.33
40 to 42	Insulated Side Plates	.33	.66	.66
50 to 54	Arm. Flex. Side Plates	.66	.....	.....
60 to 65	Angle Outlet	.48	.92	1.05
70 to 75	Elbow Outlet	.55	1.00	1.12
90 to 95	Connecting Outlet	.....	.40	.46
100 & 101	Straight for No. 500 Base	.....	.....	.....
110 to 113	" " No. 501 "	.48	.....	.....
120 to 125	" " No. 502 "	.80	.92	1.05
130 to 135	" " No. 503 "	1.85	2.10	2.40
140 to 145	" " No. 504 "	3.85	4.25	4.65
300 & 301	Threadless Outlet	.....	.....	.....
310 & 311	"	.....	.....	.....

These prices apply only to the United States

### Fittings "Adapti"

Numbers	Description	Price
1	Porcelain One Hole Cover . . . . .	\$ .18
2	Metal For Devices . . . . .	.30
3	Porcelain One Hole Cover . . . . .	.30
4	Porcelain . . . . .	.22
5 & 6 8 & 9	Porcelain with $\frac{1}{4}$ " Male or Female Nipple . . . . .	.37
9 & 10	Male or Female Nipple . . . . .	.32
11 & 12	Malleable with $\frac{1}{4}$ " Male or Female Nipple . . . . .	.30
	" " " "	.37

NOTE: For "Adapti" Entrance Fittings See Page PL-13.

**Appleton, Crouse Hinds—& Similar  
Type GCA**

Fitting No. GCA-12 For 1/2" Conduit Without Soldering Lug.....	Price
" " " -172 " " with " "	\$ .70
	.75

	With Angle Adjustment	$\frac{1}{2}$ " One Strap	$\frac{3}{4}$ " Two Straps	1" Three Straps
GCD-12 Fitting without Lug		\$ .80		
GCD-173-22-32 with "		.85	\$1.55	\$2.50

		With	Threaded Plug	Terminal	
GCE-142	For 1/2" Conduit & 3/4" Water Pipe			without Lug	\$.80
GCE-242	" " " "			with Lug	.90
GCE-342	" " " "			with Lug	1.05

GCE1	For 1/2" Conduit.....	\$0.40
GCE2	" 3/4" ".....	.55
GCE3	" 1" ".....	.70

GC 91	Cast Brass with No. 4 Lug and One Strap	$\frac{1}{2}$ to 1" Water Pipe	\$ .70
GC-92	Cast Brass with No. 4 Lug & One Strap	$\frac{1}{2}$ to 2" Water Pipe.	.75
GC-922	" " " " 00 Lug & Two Straps	" " 2" " "	1.45

GC191	Water Meter Shunt For $\frac{1}{2}$ " to 1" Water Pipe.....	\$1.75
GC192	" " " " $\frac{1}{2}$ " to 2" " .....	1.80

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
Without Screw or Lug.	\$ .10	\$ .13	\$ .20	\$ .24	\$ .31	\$ .46	\$ .84	\$ 1.10
With Screw & Lug....	.20	.24	.13	.32	.40	.61	1.00	1.25

G. E.	T. & B.	Description	Price
SP-800-05	3670-80	1 1/2" Body Saws 1 1/2" to 2"	\$0.90
SP-810-15	3671-81	" " " 1 1/2" to 2"	1.60
SP-820-25	3672-82	" " " 1 1/2" to 2"	2.50

SP-900 to	3650 to	1/4"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/4"	3"	3 1/2"	4"
911	3659	15c	20c	24c	26c	30c	45c	90c	\$1.10	\$2.00	\$2.25

SP-600	8' Grounding Jumper.....	\$0.45
SP-601	12' " ....."	.55

45 DEGREE ANGLE BOX CONNECTOR	Squeeze or Tangent Type	1 1/2" .35 1 3/4" .48 1 7/8" .85 1 3/4" 1.00 1 1/2" 1.25
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	" 19 "	1.60
	" 20 "	1.25
	" 21 "	1.60

Bushings or Ferrules—Brass.....	.02
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Number	Description	Price
2150-57-60-61	Straps—Fasteners & Bushings . . . . .	\$ .02
2150	Toggle with Wire Loop . . . . .	.03
2170-2180-2154	Set Screw Connector . . . . .	.16
2170-2150	90 Degree Box Connector . . . . .	.10
2155-2156	90 Degree Box Connector . . . . .	.10
412-413	Connector for Ovalflex to Metal Molding . . . . .	.25
9080-S	Squeeze Connector . . . . .	.10

Fitters NOT INCLUDED		Standard		Plain White Only	
Diameter or Width		Depth or Length		Fitter	Price
6" Diameter	5½"	Inches to 6	6½"	3½"	\$ 1.00
8" Diameter	5¾"	" " 6	6¾"	4"	1.25
9" " "	5¾"	" " 6	7¼"	4"	1.35
10" " "	6"	" " 6	8¾"	4"	1.75
12" " "	6½"	" " 6	8¾"	4" or 6"	3.25
14" " "	7¾"	" " 6	10½"	6"	4.50
16" " "	8" or 8½"	" " 6	11¾"	6"	5.25
18" " "	9"	" " 6	12"	6"	8.25
20" " "	10	" " 6	10½"	8"	15.00

Fitters NOT INCLUDED			Plain White Only
8"	Diameter	6 1/4	Inches . . . . . 4" \$ 1.40
9"	"	7 1/4	" " " 4" 1.75
10"	"	8	" " " 4" 2.50
12"	"	8 1/2 & 9	" " " 6" 3.75
14"	"	9 1/2 & 11	" " " 6" 5.25
16"	"	10 and 12 1/2	" " " 6" 6.75

6" Diameter	6 Inches Deep	Opal of C. K. 1.
7"	7"	\$ 0.60
8"	8"	.80
10"	10"	1.20
12"	12"	2.20
14"	14"	3.50
16"	16"	5.25
		7.50

Half Shades	4 1/2"	Diam. 6"	Deep 2 1/4"	Fitter.....	\$0.75
Mission Bell Shades	4 1/2"	" 4 1/2"	" 2 1/4"	" .....	.50
" " "	6"	" 4"	" 2 1/4"	" .....	.60
" " "	7"	" 5"	" 2 1/4"	" .....	.80
" " "	8"	" 5"	" 2 1/4"	" .....	1.25

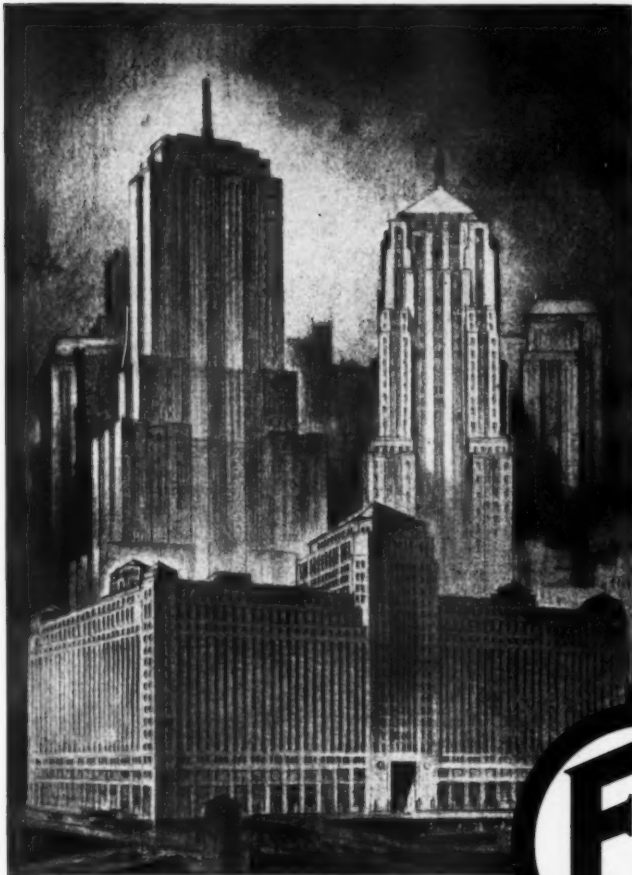
Loxon			
1 Key with each dozen Guards—Extra Keys 10c each			
Lamp Size	Fits Socket	McGill Loxon Nos.	Price Each
15-25-40 Watt	Brass or W. P.	1420-1420A-1420B	\$0.60
50-60 Watt	Brass or W. P.	1425-1427A-1427B	.60
100 Watt	Brass or W. P.	1426-1428A-1428B	.60
150 Watt	Brass	2443	.80
200 Watt	Brass or W. P.	2444-2446A-2446B	.85
200 Old Style	Brass	2447	.95
200 Old Style	Weatherproof	2447A-2447B	1.00

*These prices apply only to the United States*

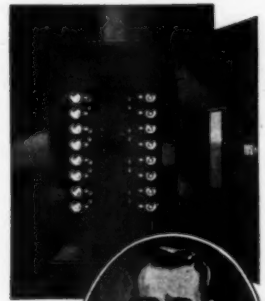
Electrical Contracting, August, 1931







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If the testimony of the builders of great buildings is a proof of higher worth, **FA** Panelboards can lay claim to fame on this point also. Yet, in service, **FA** Panelboards are as economical, as steadfast in daily performance without maintenance, as much a "Sign of a Better Job" in small buildings as in the largest.

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<b>Baltimore, Md.</b> Wolfe-Mann Mfg. Co. 312 S. Hanover St.	<b>Minneapolis, Minn.</b> Leo. H. Cooper 422 Builders' Ex. Bldg.	<b>Seattle, Wash.</b> Electric Engineering Sales Company, 2914 First Ave., S.
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<b>Buffalo, N. Y.</b> Ralph E. Jones, 1890 Hertel Ave.	<b>New York</b> Fred Kraut, 419 W. 54th St. New York City	<b>Toronto, Can.</b> Amalgamated Elec. Co., Ltd. Gen. Sales Office, 372 Pape Ave.
<b>Chicago, Ill.</b> Major Equipment Co., Inc., 4603 Fullerton Ave.	<b>Omaha, Nebr.</b> B. J. Fleming, 213 S. 12th St.	<b>Vancouver, Can.</b> Amalgamated Elec. Co., Ltd. Granville Island
<b>Cincinnati, Ohio</b> E. F. Schurig, 105 E. Pearl St.	<b>Orlando, Florida</b> F. W. Knoepfel, 610 Richmond Ave.	<b>Winnipeg, Man., Can.</b> Amalgamated Elec. Co., Ltd.
<b>Cleveland, Ohio</b> Frank Reske, 684 The Arcade	<b>Philadelphia, Pa.</b> W. A. MacAvoy, Jr., 244 North 10th St.	<b>Calgary, Alberta</b> Amalgamated Elec. Co., Ltd. 1301 11th Ave., East
<b>Dallas, Texas</b> R. S. Wakefield, 1814 Allen Bldg.	<b>Pittsburgh, Pa.</b> W. A. MacAvoy, Jr., Dist. Mgr. R. E. Thomas, Room 1004, 427 Fourth Ave.	<b>Hamilton, Ont.</b> Amalgamated Elec. Co., Ltd. 18 Mary St.
<b>Detroit, Mich.</b> H. H. Norton, 2683 Wabash Ave.	<b>St. Louis, Mo.</b> O. H. Rottman, 3650 Windsor Place	<b>Montreal, Can.</b> Amalgamated Elec. Co., Ltd. 1006 Mountain St.
<b>Kansas City, Mo.</b> Robert Baker, 19 E. 14th St.		
<b>Los Angeles, Calif.</b> E. Zinmeyer, 1127 S. Wall St.		



# G-E White Rigid Conduit is

*not only Glyptal Coated  
but also Hot Dipped Galvanized\*  
and Easy-Bending .....  
and Quick-Threading ....  
and Permanent .....  
and Economical .....*

**F**OR all rigid conduit jobs, use the famous G-E White rigid conduit. It not only is doubly protected from attack both by hot-dipped galvanizing and a Glyptal coating, but also has the unique advantage of being easier to install because it is made of a special alloy steel that makes bending easier.

The Glyptal is put on, both outside and in,

by dipping the conduit, and it is then baked on at a high temperature. This tough coating gives G-E White rigid conduit extra protection against rust and corrosion, adding to its already well-known durability and long life.

The coating of Glyptal makes G-E White rigid conduit an even better conduit *at no increase in price to you*. Use it on every job.

\*both outside and in

GENERAL  ELECTRIC  
RIGID CONDUIT

MERCHANDISE DEPARTMENT, GENERAL ELECTRIC COMPANY, BRIDGEPORT, CONNECTICUT

# PL-16

## Molding

## Plugs, Appliance

### OVALDUCT FITTINGS

No.	Description	Price Each
24-CQ	Extension box cover for 4" outlet boxes.....	\$ .45
401	Box Connector with 1/2" Bondant.....	.25
2133	Squeeze Type Coupling 1 1/4" long.....	.15
2134	90 Degree Internal Elbow.....	.35
2135	45 " Flat.....	.36
2136	One piece 90 degree elbow.....	.50
2156	90 " Box Connector.....	.30
2159	Wire Toggle Fastener.....	.03
2161	Strap Fastener.....	.02
2181	Connector Ovalduct to Oval Knockout.....	.10
2662	Outlet Box 4 x 3/4.....	.30
2663	Extension Ring for Boxes.....	.20
2665	Outlet Box 4 x 1/2 with Fixture Stud.....	.28
2862	" " 3/4 x 1/2.....	.30
2865	" " 3/4 x 1/2 with Fixture Stud.....	.26
4170-S1	Sectional Switch Box 4 x 1 1/2 x 1.....	.35
4172-S1	Spacer for above box.....	.30

## MOLDING, WIREMOLD

### MOLDING

No. 500 2-Wire,	price per ft.	\$ .10
" 700 4-Wire,	" "	.12
" 1000 Master Size,"	" "	.23

### FITTINGS FOR No. 500

Number	Description	Price
502	Bushing.....	\$0.04
504	Supporting Strap.....	.04
506	Connecting Cover.....	.04
511-12	45 & 90 Deg. Elbows.....	.22
515	Tee Plain.....	.36
516	Cross Plain.....	.38
517	Internal Elbow.....	.24
518	External.....	.22
519	Corner Box.....	.38
521	1 Piece Rosette.....	.36
523	3/4" Fixture Rosette.....	.75
524	3/4".....	.70
525	Receptacle Base.....	.90
526	Keyless Receptacle.....	.95
527	Attachment Plug.....	1.00
532-23	2 1/2" & 3" Outlet Box.....	.45
538	Operwork Coupling.....	.36
599	Moulding Connector.....	.08

### FITTINGS FOR No. 700

Number	Description	Price
701	Coupling.....	\$0.04
702	Bushing.....	.04
703	Clip.....	.06
704	1 & 2 Hole Strap.....	.06
706	Connection Cover.....	.04
707	Multiple Strap.....	.10
708	Fixture Hook.....	.22
709	Ground Clamp.....	.12
711-12	Elbows 45 & 90 Deg.....	.22
715	Tee.....	.36
717	Internal Elbow.....	.25
717A	Elbow Pull Box.....	.50
718	External Elbow.....	.22
719	Corner Box.....	.45
720	Narrow Fitting.....	.55
720A	Show Case Outlet.....	.45
721	1 Piece Rosette.....	.35
724	Comb.....	.70
725	Receptacle Base.....	.80
726	Keyless Receptacle.....	.95
727	Plug Receptacle.....	1.00
728	Utility Box.....	.40
729	Contact Block.....	.26
730	Blank Cover.....	.15
731	Blank Cover.....	.15
732-3	2 1/2" & 3" Outlet Box.....	.45
734	Closed Extension.....	.65
735	Distribution Box.....	.75
736	Blank Cover.....	.16
737	4 1/2" Extension Box.....	.65
738	4 1/2" Fixture Box.....	.65
738D	Diple Thru Hook Conn.....	1.50
738E	Stamped Hook.....	.10
	Canopy.....	.65

### FITTINGS FOR No. 700

Number	Description	Price
739	6 1/2" Fixture Box.....	\$0.95
739A	6 1/2" Extension.....	.95
744	Single Deep Box.....	.85
744-2	2 Gang.....	1.20
745	Combination.....	.70
747	Single Shallow Box.....	.75
747-2	2 Gang.....	1.05
747-3	3.....	1.15
748	Single Surface.....	.85
748-2	2 Gang.....	1.15
748-3	3.....	1.20
748S	Shallow Rec.....	.65
749	Switch & Recep.....	1.00
750	Push Switch Box.....	1.05
751	Single Adp. Plate.....	.70
752	2 Gang.....	1.25
753	3.....	1.30
760	Blank Extension Box.....	.95
781A	1 1/2" & 3/4" Box Connector.....	.35
782A	1 1/2" & 3/4" Pipe Coupling.....	.36
783	1 1/2" Elbow Box Conn.....	.36
784	1 1/2" Pipe Coupl.....	.36
785	Comb. Connector.....	.28
786	Adj. Offset Conn.....	.40
788	Openwork Connector.....	.45

### FITTINGS FOR No. 1000

Number	Description	Price
1001	Coupling.....	\$0.06
1002	Bushing.....	.04
1003	Clip.....	.06
1005	One Hole Strap.....	.08
1008	Hanger Assembly.....	.90
1008A	Hanger Clamp.....	.18
1009	Ground.....	.20
1011	90 Deg. Flat Elbow.....	.40
1013	Adj. Elbow.....	.40
1017	Internal Elbow.....	.40
1018	External.....	.35
1020	Keyless Receptacle.....	.90
1020A	Angle.....	1.40
1020B	Blank or Outlet Box.....	19.05
1028	Utility Box.....	.50
1035	Distribution Box.....	1.10
1039	6 1/2" Fixture.....	.90
1048	Switch & Recep Box.....	1.00
1082	Pipe Coupling.....	.60
1085	Comb. Connector.....	.35
1086	Offset Connector.....	.70
1087	Kick Plate.....	.32
1089	Reducing Connector.....	.15
1000F	Flex. Fitting 18".....	1.75

## LEWIS METER AND SWITCH CABINETS

CLASS A					MAIN FUSE ACCESSIBLE	
Amp.	Volts	Wire	Fuse	Neutral	Numbers	Price
30	125-250	3	2	Solid.....	M7311-ML7311.....	\$12.30
30	125-250	3	2	".....	M7311M-ML7311M.....	12.80
30	125	2	1	".....	M7211-ML7211.....	12.20
30	125	2	1	".....	M7211M-ML7211M.....	12.30
30	125	2	2	Fused.....	M7211D-ML7211D.....	12.95
60	125-250	3	2	Solid.....	M7312-ML7312.....	19.75
60	125-250	3	2	".....	M7312M-ML7312M.....	19.05
60	125	2	1	".....	M7212-ML7212.....	19.30
60	125	2	1	".....	M7212M-ML7212M.....	19.05
60	125	2	2	Fused.....	M7212D-ML7212D.....	19.30
CLASS B					SEALED MAIN FUSES	
30	125	2	1	Solid.....	M5211 or ML5211.....	\$12.30
30	125-250	3	2	".....	M5311 " ML5311.....	12.80
30	125	2	2	Fused.....	M 211 " ML 211.....	12.20
30	125-250	3	2	Unfused.....	M 311 " ML 311.....	12.30
30	250	2	2	Fused.....	M 221 " ML 221.....	12.95
60	250	2	2	".....	M 222 " ML 222.....	15.30
30	125-250	3	2	Unfused.....	M 321 " ML 321.....	12.70
30	125-250	3	2	Solid.....	M 321SN or ML 321SN.....	12.70
60	125-250	3	2	".....	M 322 or ML 322.....	15.30

### "METER TEST TYPE" CABINETS

30 Amps.....	Cat. No. M303 or ML303.....	\$6.25
60 Amps.....	Cat. No. M602 or ML602.....	7.30

## N-SUNDRIES

### PIPE NIPPLES

Size Conduit	1/2"	3/4"	1"	Close Nipples—Galv.	1 1/4"	1 1/2"	2"	2 1/2"	3"
Length Conduit	Cond. Cond. Cond. Cond. Cond. Cond. Cond. Cond. Cond. Cond.	\$0.07	\$0.08	\$0.12	\$0.16	\$0.20	\$0.24	\$0.24	.....
2" to 3 1/2" Long.....	\$0.10								
2 1/2" x 4 1/2".....		\$0.12	\$0.15						
3" x 4 1/2".....			\$0.21	\$0.21					
3 1/2" x 5 1/2".....				\$0.35					
3 1/2" x 5 1/2".....					\$0.70				
Length Conduit	Long Nipples—Black or Galv.								\$0.85
4" Long.....	\$0.10								
5".....		\$0.14	\$0.20	\$0.24	\$0.30	\$0.38			
6".....		.15	.17	.22	.28	.34	.40	\$0.80	\$1.00
7".....		.18	.21	.27	.34	.40	.55	1.05	1.25
8".....		.21	.23	.30	.37	.45	.60	1.12	1.40
9".....		.22	.25	.33	.40	.50	.67	1.22	1.55
10".....		.24	.27	.37	.40	.56	.75	1.35	1.65
11".....		.30	.35	.45	.58	.70	.95	1.45	1.80
12".....		.30	.38	.48	.61	.75	1.00	1.55	1.95

### CHASE NIPPLES & COUPLINGS

Chase Nipples, each	\$ .10	\$ .10	\$ .10	\$ .14	\$ .25	\$ .28	\$ .32	\$ .50	\$ .70	\$ 1.10
Couplings	.12	.12	.12	.14	.....	.....	.....	.....	.....	.....

For Erickson Couplings, see Page PL-8.

### CHASE MALE REDUCERS AND FEMALE ENLARGERS

Size	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	2 1/2"	3"
1/2" to 1/4" Reducer, each.....	\$ .20							
1 1/4" to 1".....		.25						
1 1/4" to 1 1/2".....		.45						
1 1/4" to 2".....			1 1/4"	1 1/2"				
1 1/4" to 2 1/2".....								
1 1/4" to 3".....								

### NAILS—Insulated

Millonite Insulated Nails, per dozen.....	\$ .05
Leather Nail Heads.....	.05
Staples Insulated.....	.05

## PLUGS, ATTACHMENT

### ATTACHMENT PLUGS COMPLETE

	Price
"Pony" Composition.....	\$0.15
Standard.....	.15
"Pony" Genuine "Bakelite".....	.15
Polarized Standard Comp. Plug.....	.25
Large Size Double T Slot Comp. Plug.....	.60
Weatherproof One Piece Comp. Plug.....	.50
Benjamin #003 Swivel Plug.....	.20
Pony Body Only.....	\$0.10
Standard Body.....	\$0.15
Large Body.....	\$0.35

### 10 AMP.—CAPS ONLY—For Attachment Plugs

"Pony" Cap Composition.....	\$0.10
"Standard" Cap.....	.10
"Bakelite".....	.10
Large Size Cap Composition.....	.30
Plug With Extension Knob.....	.15
Soft Rubber Cap.....	.25
"Standard" Cord Grip Cap.....	.30
Steel Covered Cap.....	.20
Brass.....	.50
Steel.....	.40
Disappearing Door Comp. Cap.....	1.15
Brass Cov. Cap.....	1.40
"Standard" Brass Cov. Finger Grip.....	.40
"Knostrain" Comp. Cap.....	.60
Brass Cov. Knostrain.....	.85
Comp. Fusible Cap.....	.60
Polarized 2 Wire Comp. Cap.....	.30
2 " Wire Comp. Cap.....	.55
2 " Steel Covered Cord Grip Cap.....	.30
2 " Cord Grip.....	.40

### 20 AMP. CAPS—For Polarized Devices

2 Wire Brass Covered Cap.....	\$0.90
3 " Steel Covered Cord Grip Cap.....	1.20
3 " Steel Covered Cord Grip Cap.....	1.10
3 " Cord Grip.....	1.25

### 30 & 40 AMP. CAPS—For Polarized Devices

30 Amp. 2 Wire Porcelain Cap.....	\$1.85
30 " 2 " Steel Cov. Cord Grip.....	2.00
30 " 3 " Porcelain.....	1.85
30 " 3 " Steel Cov.....	1.90
40 " 3 " Str. Cap Ground. C. G.....	3.25
60 " 3 " Steel Cov. Cord Grip.....	3.00

### Flasher Plugs

Diamond Flasher Button.....	\$0.60	No. 125 Speeddoodle Plugs.....	\$2.50
"Propp" #530 Flasher Button.....	.50	No. 164.....	.60
"Rodal" 110 Volt " Plug.....	.50	No. 161.....	.80
220 Volt.....	.65	No. 165.....	.90

## PLUGS, APPLIANCE

Make	No.	Description	Price
American Beauty	802	Plug Complete for Small Irons.....	\$0.40
	806	" " " " Large.....	1.25
	907	" " " " Toaster & Stoves.....	.20
Beaver	F-1	"Gripall" Super-Type Adjustable Cont.....	.45
"Gripall" & "Suizall"	F-5	" " " " Nickel Alloy.....	.55
	F-6	" " " " Nkl. Alloy Cont.....	.60
	F-7	" " " " Adj. Cont. Bakelite.....	.80
	F-22	"Suizall" Heater Plug—Full Size.....	.30

These prices apply only to the United States

Electrical Contracting, August, 1931

## PLUGS, APPLIANCE, Continued

Beaver	F-31	Standard Heater Plug—Single Sided Cont.	\$0.15
"Gripall" & "Suittall"	F-32	Heater Plug Double Sided Contacts	.20
	F-33	Armored Casing (F-32 Type Armored)	.25
	F-34	Medium Heater Plug—Bakelite	.25
	F-35	Small Heater Plug—Black	.20
	G-1	"Gripall" Heater Switch Plug Adj. Cont.	.80
	G-2	"Gripall" Heater Switch Plug Nickel Alloy Contacts	.90
	G-21	Competitive Push Button Type	.45
	G-22	New Toggle Type	.45
Bryant	668	Universal Appliance Plug with Switch	.85
	669	Switchless	.80
	752	Appliance Plug with Indicating Switch	.60
	2096	Small Switchless Plug	.45
Cutler-Hammer	7051	Appliance Plug with Switch	.60
G. E.	2602	Armored Heater Plug No Switch	.25
	2633	Large Heater Plug	.20
	2642	Switch " " with " "	.45
	2699	Small " " No " "	.25
	2826	"Handy Pull" Heater Plug	.35
Hemco	H250	Switchless Appliance Plug Bakelite	.50
	H200	Switch	.75
Hotpoint	CD6P1	Iron Plug No Switch	.45
	CD69P1	" " " " Armored	.60
	CD79P1	" " " " with " "	1.00
Kool-Pull (Noark)	8037	Appliance Plug—No Switch	.75
	8039	" " " " with " "	1.00
Propp	5	One 4-All Appliance Plug—No Switch	.50
	52	Iron Plug with Switch	.50
	55	Standard Iron Plug—No Switch	.20
	56	Armored " "	.30
Reynolite	500	Heater Plug	.40
	510	Switch Heater Plug	.75
Rodale	P-21	Heater Plug No Switch Cold Molded	.15
	P-29	" " " " Armored	.20
	450	Full Heater Plug—No Switch	.45
	610	Bakelite " " Small	.20
	615	Armored Heater Plug—No Switch	.45
	850	Iron Plug with Switch	.30
	800	" " " " Armored	.65
Simplex	890	Armored Plug—No Switch	.75
	990	Deluxe Chromplate Plug	1.00
Sunbeam	A-85	Heater Plug	1.50
Torrid	B-070	Automatic Heat Control Plug	1.00
	B-080	Safety	1.00
Waage		3 & 4 Heat Plug Only	.50
Westinghouse	299423	Appliance Plug—No Switch	.75
	373656	" " " " With " "	1.00

## PANEL BOARDS OR FUSE CABINETS

## FRANK ADAM

All 30 Amp.—S. P.—NEC Fuses	Branch	Branch	Branch	Branch
"FBX" Safety Type Fuse Boxes	\$ 3.80	\$ 5.60		
"NR" " " Main Cable Lug Only			\$ 8.90	\$11.90
"NR" " " Solid Neutral	11.15	13.40	15.60	
NR3G " " Main Cable Lug Only			16.50	19.80

## All for Plug Fuses BENJAMIN-STARRETT

Cat.	No.	Type and Description	4	6	8	10	12
			Circt.	Circt.	Circt.	Circt.	Circt.
66104-12 NP		One Fuse 3 Wire Serv.	\$ 5.20	\$ 7.40	\$ 8.90	\$10.40	\$11.90
66204-12 P		Two Fuse 2 and 3 Wire Serv.	7.50	11.15	13.35	15.60	18.60
66304-12 NEP		One Fuse with Switch Pl.	7.10	10.30	12.80	16.50	19.15
66404-12 EP		Two Fuse with Switch Pl.	10.30	15.25	19.15	21.80	25.15

## BULLDOG FUSESTERS

No.	Description	2	4	6	8	10	12
		Circt.	Circt.	Circt.	Circt.	Circt.	Circt.
CBS	Surface Black Finish with shield	\$1.80	\$2.30	\$3.90	\$7.00	\$9.75	\$10.30
BOS	" " Black Finish without Shield	1.65	2.15				
BF	Flush Luminized Finish	2.50	3.70	5.35	8.75	10.30	11.75
BBF	" " Black Finish	2.00	2.75	4.70			
BSF	" " Lum. Finish with Toggle Switches		6.60	9.90	13.20	15.70	19.80
BSSF	" " Lum. Finish with one 30 A. Safftouse		20.50	22.00	31.75	33.35	35.00
BSSF	" " Lum. Finish with one 60 A. Safftouse		21.50	22.30	32.25	33.75	35.40
BKF	" " Lum. Finish with Pull Box		6.60	9.90	14.85	17.35	19.80

## All-Steel-Equip. Co., FUSE CABS

Style & No.	Description	2	4	6	8	10	12
		Circt.	Circt.	Circt.	Circt.	Circt.	Circt.
C-702-4-6	Surface Small Type	\$1.80	\$2.55	\$3.95			
C-902-4-6	Flush Small Type	2.10	2.80	4.85			
D-3004 to 3074	Surface Type Single Fuse		3.20	5.10	\$7.50	\$10.10	
D-3034 to 3094	Flush Type		3.75	5.60	9.00	12.10	
D-4002 to 4012	Surface Type Double Fuse	3.20	5.10	10.10	23.00	36.00	
D-4022 to 4032	Flush Type Double Fuse	3.75	5.00	12.10	27.00	45.00	
DS-3304 to 4304	Flush or Surface-Sgl.		6.90	9.25	13.80	21.00	
DS-3502 to 4502	Flush or Surface-Double	6.90	9.25	21.00	34.50	70.00	

## KILLARK

Standard Flush Type Panels	2	4	6	8	10	12
Series KRP—2 to 12 Inclusive	\$2.00	\$2.90	\$4.75	\$6.50	\$8.50	\$10.75

## CUTLER-HAMMER—Fuse Panels—Flush Mounting

Circuits	2 Cir.	4 Cir.	6 Cir.
Black Finish Series 4355 H1 to 6	\$ 1.00	\$ 2.60	\$ 4.65
Aluminum Finish Series 4355 H1 to 6	2.40	3.45	5.35
Circuits	8 Cir.	10 Cir.	12 Cir.
Black Finish Series 4355 H1 to 6	\$ 8.20	\$ 9.95	\$10.20
Aluminum Finish Series 4355 H1 to 6	8.65	10.95	11.65

## G. E. or TRUMBULL—Residence Panel Boards

Surface or Flush Mounting	4	6	8	10	12
Single No 3104 to 3212	Circt.	Circt.	Circt.	Circt.	Circt.
Flush Mtg. or Fusing					
2506 to 2912	\$2.80	\$ 4.55	\$ 9.65	\$11.25	\$13.00
Double No. 3404 to 3412					
Flush Mtg. or Fusing					
2704 to 2712					
Surface Mtg.	9.10	12.40	18.15	23.10	26.40

## SQUARE D—Fuse Cabinets

Series 37000 to 39000	2	4	6	8	10	12
Flush Series 37000 Black	Circt.	Circt.	Circt.	Circt.	Circt.	Circt.
" " 37000 Aluminum	\$1.85	\$2.50	\$4.50	\$7.90	\$ 9.50	\$11.15
Surface Series 39000 Black	2.35	3.35	5.10	8.30	10.00	11.15
NOTE: 2 & 4 Circuit Flush Type arranged for mounting direct to front face of studding with channels for lathe ends, each	1.85	2.50	4.50	7.90	9.50	11.15
						\$0.20

## Combination Fuse Cabinets

60 Amp. Fuse Break and 30 Amp. Circuits	2	4	6	8
Flush Mounting Aluminum	Only	Circt.	Circt.	Circt.
Surface Black	\$7.45	\$12.40	\$14.00	\$14.85
	6.45	10.75	11.55	12.40

## WADSWORTH Fuse Cabinets &amp; Panelboards

All Dead Front Single Fusing	2	4	6	8	10	12
Surface Mtg.	Circt.	Circt.	Circt.	Circt.	Circt.	Circt.
Flush Mtg. Hanger Support	\$2.30	\$3.00	\$4.85	\$5.75	\$7.55	\$11.55
Flush Type for Tgle Sw.	2.85	3.80	6.10	7.55	10.20	12.00
	6.85	11.10	13.75	16.40	19.85	
16 Circt.	20 Circt.	24 Circt.				
Surface Mtg. Enc. Panel Boards 100 Amp. Mains	\$22.00	\$25.35	\$32.00			
Flush	24.75	28.00	34.65			

## WESTINGHOUSE Junior Residence Type

Junior Residence Panels	2	3	4	6	8	10	12
No. K-64012-21 & 64052-61	Circt.	Circt.	Circt.	Circt.	Circt.	Circt.	Circt.
Junior Building Panels for Toggle Switches	\$2.50	\$2.70	\$3.75	\$5.35	\$9.75	\$10.30	\$11.70
No. K-64034-42 & 64074-81	6.60	9.90	13.20	15.70	19.80		

## PLATES &amp; PLUGS, RECEPTACLE

## PLATES—For Flush Receptacles

All Types	Composition	.040 Gauge	.060 Gauge
Single or Duplex Plate	Lacquer B. Brass	Lacquer B. Brass	Lacquer B. Brass
Lift Cover Plate 1 Outlet	\$0.15	\$0.10	\$0.20
Radio Plates—Sgle. or Duplex	.40	.55	.65
Telephone " " One Outlet	.20	.15	.20
Disappearing Door Plate Sgle. or Duplex	.20	.35	.45
Chapman Receptacle	.20	.25	.30
Blank Plates One Gang	.20	.25	.30
Bull's Eye Plate One Gang	.80	.70	.80
" " and 1 Switch Comb.	.90		1.00
Switch and Sgle. or Duplex Recept.	.80	.85	.70
Steel Plates for 30 and 40 Amp. Polarized Receptacles	.80		.80
Solid Brass Plates 30, 40 & 60 Amp.	1.65		1.65
Screwless Plates Bakelite for Hubbell Receptacles	.55		.55
Porcelain Enameled Plates for Sgle. or Duplex Receptacles	.25		.25
Mirror Glass Plates for Single Receptacle	1.00		1.00
DeLuxe Metal Plates for Single or Duplex Receptacles	.90		.90
DeLuxe Wood Inlaid Plates for Single or Duplex Receptacles	2.35		2.35

## CAPS &amp; PLUGS For Receptacles

10 Amp. Pony Bakelite Cap	Price
Standard	\$0.10
Cap With Extension Knob	.15
Brass Covered Cap	.50
Steel	.20
Cord Grip Cap	.30
Tandem Blade Compo. Cap	.80
Radio Jack Plug	.60
Chapman Plug Reversible Compos.	1.00
Chapman Plug Porcelain	.60
Disappearing Door Plug Brass Top	1.40
10 Amp. 2 Wire Polariz. Comp. Cap.	.30
Cord Grip Cap	.40
Comp.	.60
Cord Grip	.90
Comp.	1.00
Cord Grip	.50
Comp.	.80
Cord Grip	1.20
Comp.	.95
Cord Grip	1.65
Comp. Cord Grip	3.45
Heavy Duty Angle Cap	2.25
With Cord Grip	.65
110 Volt 2 CP 58 Carbon Lamp for Bull's Eye Receptacle	.40
110 Volt 2 CP 57	

## RECEPTACLES, FLUSH

## STANDARD RECEPTACLES OR CONVENIENCE OUTLETS

Without Plates	Plates Extra	Price
Shallow Bakelite Side Wired	Single	\$ .25
" " " " " "	Duplex	.35
" " " " " "	Single	.25
" " " " " "	Duplex	.35
Deep Bakelite Top	Single	.40
" " " " " "	Duplex	.65
" " " " " "	Single	.40
" " " " " "	Duplex	.65

These prices apply only to the United States



**Plates Extra Except Where Marked "X"**

For Lift Cover Plate Single.....	\$ .70
Duplex.....	1.00
2 Sgl. With 3 1/4" Box Cover.....	.35
1 Dup. " 3 1/4" .....	.80
2 Sgl. " 4" .....	.40
1 Dup. " 4" .....	.55
2 Sgl. " Small Brass Pl. ....	1.20
" Large " .....	1.35
Edison Screw Base Recp. Single.....	.40
Chapman Receptacle.....	1.00
Radio Duplex.....	1.60
Disappearing Door Recp. Single.....	1.15
Duplex.....	1.75
Screwless Plate Recp. Single.....	.30
" Duplex.....	.45
10 Amp. Polariz. For 2 Wire Single.....	.85
20 " " " 2 " " .....	1.50
30 " " " 2 " " .....	2.00
10 " " " 3 " " .....	3.00
30 " " " 3 " " .....	1.70
40 " " " 3 " " .....	.90
30 " " " 3 " " With Box Cover.....	5.00
40 Amp. Polariz. 3 Wire .....	6.00

### Connections

No.	Connections	Brass	Bakelite
134	Several loud speakers.	\$2.50	\$2.60
135	Loud speaker.	1.00	1.10
136	Aerial & ground.	1.00	1.10
137	B (with plug)	3.50	2.30
138	Electrical only.	1.00	1.10
142	Double loud speaker.	1.15	1.85
226	Loud speaker, aerial & ground.	2.00	2.20
241	Aerial, ground & elect.	2.00	2.20
242	Loud speaker & elect.	2.00	2.20
239	Aerial, ground & battery.	3.50	2.70
353	Loud speaker, aerial, ground & elect.	3.00	2.70

#### and Single Outlet Comp

	Price
Pilot Light-Plate and Single Outlet Comp.	\$2.95
" " " Duplex	4.25
" " " Switch and Bull's Eye	3.30
" " " Recept. Only With Plate	1.60
Switch and Plate 40 Amp. Sg. Out. Comp.	1.60
" " " 20	3.00
Hubbell Switch Tap Combination Screw Plate #7093-Recept.	\$7.163
Hubbell Switch Tap & Pilot Light Comb. Screw Plate #7317-Recept.	\$7.280

## ALABAX RECEPTACLES AND FIXTURES

**Symbol:** Column No. 1—Number of Alabax Fixture.  
Column No. 2—Resale Price Standard White Glaze Finish.  
Column No. 3—Resale Price All Over Color B-D-E-F-G-H-J-K-L-M.  
Column No. 4—Resale Price Stripe Decoration No. 1A-2A-4A.  
Column No. 5 and 6—Resale Price Stripe Decoration T and U.

Column No. 1 Number	Column No. 2 White	Column No. 3 Color	Column No. 4 Stripe	Column No. 1 Number	Column No. 2 White	Column No. 3 Color	Column No. 4 Stripe
AL844	\$2.75	\$3.15	.....	AL1469-70	\$3.00	\$3.30	\$3.45
845	3.00	3.50	.....	1471	2.10	2.35	2.55
846-53	2.90	3.35	\$3.80	1475-76	2.10	2.35	2.55
847	3.15	3.65	.....	1477	2.45	2.75	2.90
848	2.00	2.25	2.40	2007-9	1.40	1.70	1.85
849-50	2.45	2.90	2.75	2009-10	1.55	1.85	2.00
851	1.50	1.75	1.90	2011-12	1.25	1.50	1.70
852	2.60	3.05	3.50	2013	1.70	2.00	2.20
859-63	1.95	2.25	2.40	2014	1.85	2.15	2.30
864	2.20	2.55	3.10	2015	1.55	1.85	2.00
865	2.55	3.00	3.45	2371	1.25	1.50	1.70
866	2.45	2.90	.....	2469	3.10	3.35	4.00
867	2.80	3.25	2.75	2471	2.70	3.15	3.60
869-70	2.60	2.85	3.05	2669	3.95	4.40	4.85
871	1.65	1.90	2.10	2671	3.40	3.85	4.30
872	2.45	2.90	3.35	2846	3.08	3.55	4.00
873	2.80	3.25	3.70	2847	3.95	4.40	4.85
875	2.45	2.70	2.90	2852	2.85	3.30	3.75
880	.95	1.25	1.40	2853	3.15	3.60	4.05
890-90-921	2.70	2.95	3.20	2864	2.15	2.40	2.65
921	.75	1.00	1.30	2865-72	2.80	3.25	3.70
923	2.45	2.70	.....	2873	3.10	3.55	4.00
924	2.10	2.35	.....	2990	2.20	2.50	.....
929-30	2.05	2.30	2.50	2991	1.60	1.90	.....
949-50	2.10	2.40	2.60	3100	2.45	2.90	3.35
951	1.15	1.40	1.60	3101-02	2.20	2.65	3.10
952-02	2.10	2.35	2.60	3102	1.85	2.30	2.75
960	1.05	1.35	1.50	4070	1.50	1.85	.....
969-70	2.25	2.55	2.75	4071	1.80	1.55	.....
971	1.30	1.60	1.75	4072	1.65	1.80	.....
980-83	1.70	2.00	2.20	4073	1.35	1.60	.....
984	1.50	1.75	1.95	9826-36	2.20	2.50	2.65
989	1.95	2.25	2.45	9896	2.40	2.65	2.85
1200-02	1.50	2.10	2.15	9906	2.45	2.75	2.90
1201-03	.....	.....	.....				
1203	.50	.65	.75				
1274-75	.90	1.05	1.10				
1276	.20	.30	.40				
1300-01	2.00	2.30	2.45	Column No. 2	Column No. 3	No. 5 Stripe	No. 6 U
1349-50	2.75	3.05	3.20	10030	3.10	\$3.55	\$5.20
1351	1.75	2.05	2.25	10001	2.85	3.30	4.95
1352	3.20	3.35	3.50	10004	3.95	4.40	5.00
1371	1.95	2.25	2.40	10005	3.55	4.00	\$4.95
1449-50	2.85	3.10	3.30	10006	3.70	4.15	5.80
1461	1.85	2.15	2.35	10007	3.30	3.75	5.40

The above Prices do not include Glassware or Lamps.

*These prices apply only to the United States*

**STANDARD RECEPTACLES or Lampholders**  
Keyless Porcelain  
Standard Base  
Uni-  
versal  
Base

	No.	Price
Pony Clear Receptacle No. S. H. Groove—Side Screws.....	60715	\$0.15
Round "                "                Center ".....	911	.20
Standard Clear "                "                Side ".....	28795	.25
"                "                "                ".....	9402	.30
"                With "                ".....	4013	.40
"                Brass Shell "                ".....	9403	.50
Concealed "                No. S. H. Groove.....	4000	.45
Oblong "                "                ".....	4001	.55
Round "                With "                ".....	58380	.50
"                "                "                ".....	8105	.55
Oblong "                Removable Rings.....	50744	.55
"                "                S. H. Groove or Midg.....	4026	.65
Mogul-P & S No. 520 Arrow 5012—Hubbell 3464—G.E. 1194.....		.95
Miniature or Candelabra Receptacle (Small Type).....	9445-0	.25
Extended Type.....	367	.35

Plain Pull for 3 1/4 & 4" Box.....

Porcelain Pull for 3¼ & 4" Box.....	\$1.85
" Brass Shell " 3¼ & 4" .....	2.15
" Porcelain Keyless for 3¼" Box.....	.40
" " " 4" " .....	.50
Brass Shell " 3¼ & 4" Box.....	1.00
One Piece Pore. Pull Cord or Ch. 3¼" Box.....	1.00
" " " " " 4" " .....	.65
" " Keyless " " " 3¼" .....	.40
" Two " Pull with 7" Ch. 3¼" .....	.45
" " " " Ch. & Cord 3¼" .....	.50
" " " " Ins. 3¼" .....	.55
" " " " 7" Chain 4" .....	.60
" " " " Ch. & Cord 4" .....	.60
" " " " " ins. 3¼" .....	.60
Keyless Mounted Blk. Metal Cov. 3¼" Box.....	.30
" " Galv. " " " 3¼" .....	.30
" " Blk. " " " 4" .....	.35
" " Galv. " " " 4" .....	.35

## p. Standard Receptacle.....

10	Amp.	Standard Receptacle.....	\$0.60
10	"	"	.60
10	"	Receptacle with Covered Term.....	.70
20	"	Polarized Receptacle.....	.85
10	"	Sgle. Porc. Rec. for 3/4" Box.....	.45
10	"	Duplex " " 3/4" .....	.50
10	"	Sgle. " " 4" .....	.60
10	"	Duplex " " 4" .....	.65

1 Concealed	3 Wire.
1 Chest	2 "

10 A. Small Concealed	2	Wire.....	\$ .60
10 A. Small Cleat	2	" " " " " "	.60
10 A. For Wood Molding	2	" " " " " "	.60
10 A. Polarized Cleat	2	" " " " " "	.70
10 A. Polarized Concealed	2	" " " " " "	.70
10 A. Polarized Wood Molding	2	" " " " " "	.80
10 A. Fielding Receptacle	2	" " " " " "	.70
10 A. Polarized Concealed	3	" " " " " "	1.00
20 A. Polarized Cleat	2	" " " " " "	1.00
20 A. Polarized Concealed	2	" " " " " "	1.00
20 A. Polarized Wood Molding	2	" " " " " "	.95
30 A. Polarized Concealed	3	" " " " " "	1.30
30 A. Polarized Composition	2	" " " " " "	1.35
40 A. Polarized Porcelain	3	" " " " " "	1.60
40 A. Polarized Composition	3	" " " " " "	2.10
Porc. Sub Base for 40 Amp. Rec.....			.30

...iling Ring 7" Chain.....

Pull for Ceiling Ring 7" Chain.....	\$0.35
" " " " 4" Cord.....	.35
" " " " Chain & Ins.....	.40
" " " " & Cord.....	.40
" " " " 3" Chain.....	.60

How Screw Term.....  
Covered \*

With 6" Wire Lead	.....	40
S. H. Groove	.....	40
Competitive Shallow Screw Term.	.....	18
Covered	.....	20
No. 14 Wire Lead	.....	15
Deep Type With Screw Term.	.....	30
Covered	.....	40
No. 18 Wire Lead	.....	40
Small Size Deep Wire Lead	.....	40

.....  
 9. Score

with Spring Stud.....	30
Removable Ring.....	30

### ADD ROSETTES

<b>STANDARD ROSETTES—Porcelain</b>		<b>Price</b>
Cleat—1 Piece Junior Fuseless Rosette.....		.15
" " " " " " " " " " " " " " " "		.25
" " " " " " " " " " " " " " " "	Fuseless .....	.40
Concealed—2 Piece Jr. Concealed Fuseless Rosette.....		.25
" " " " " " " " " " " " " " " "	" " " " " " " " " " " " " " " "	.40
" " " " " " " " " " " " " " " "	" " " " " " " " " " " " " " " "	.25
" " " " " " " " " " " " " " " "	" " " " " " " " " " " " " " " "	.25
" " " " " " " " " " " " " " " "	For Wood Moulding—Fuseless.....	.40

	For	For
Box Type—1 Piece Rosette or Screw Terminal.....	3 1/4" Box \$ .40	4" Box \$ .65
1 " " " Without Terminal...	.20	.30

For Special Condulet Rosettes—See Pages PL-10, 11 and 12.

NOTE: For Expansion Shields—See Page PL-10.

## STANDARD INDUSTRIAL REFLECTORS

## SOCKETS

*These prices apply on*

*These prices apply only to the United States*

*Electrical Contracting, August, 1931*

	Pend.	$\frac{1}{8}$ Brass	$\frac{1}{4}$ Brass	$\frac{1}{2}$ Brass	$\frac{3}{4}$ Brass	$\frac{1}{2}$ Angle	$\frac{3}{4}$ Angle	Pend. Cord Grip
Standard Brass Cap	\$ .10	\$ .10	\$ .20	\$ .30	\$ .55	\$ .60	\$ .70	\$ .45
Electroliner	.10	.10	.20	.45	....	.60	.70	....
Brass Threaded " "	.15	.15	.30	.40	....	....	....	.40
Cold Molded " "	.18	.30	.40	....	.55	....	1.00	.40
All Porcelain	.15	.30	.40	.60	.55	....	1.00	.40

	Key	Keyless	Pull	Through
Standard Brass Shell Body Only.....	\$ .20	\$ .15	\$ .30	\$ .20
Standard Electrolier Shell Body Only.....	.20	.15	.30	.20
Brass Shell Threaded Catch Body.....	.35	.30	.50	.35
Cold Molded Composition Body.....	.40	.35	.....	.....
All Porcelain Body Only.....	.40	.35	.65	.50
Lock Type Brass Shell Body Only.....	.60	.55	.65	.....

Cleat Base For Opp. Wiring.....	\$ .40
Concd. Base for Concd. Wiring—Small.....	.35
Brass Cov. Base Concd. Wiring—Small.....	.65
Brass Covered Base For 3/4" Box.....	1.10
Brass Covered Base For 1" Box.....	.25
Angle Concealed Base.....	.25
All Porcelain Cleat Base.....	.25
All Porcelain Concealed Large.....	.25
All Porcelain For 3/4" Box.....	.25
All Porcelain For 1" Box.....	.25

[illegible]

Pull Adaptor Socket—No Outlet.....	\$1.10
Pull Adaptor Socket T Side Tap.....	1.40
Pull Twin Socket-Screw Side Outlet.....	2.00
Pull Socket 1/4" Cap T Side Tap.....	1.10
Keyless 1/4" Cap Side T Side Tap.....	.75
Key 1/4" Cap Side T Side Tap.....	1.10

Composition	Mica or Porcelain with Leads.....	\$0.20
"	Decorative Sockets for Temporary Work.....	.50
Porcelain	" " " ".....	.40

Stand. Base Keyless Candle Socket with Rigid or Adjust. Hickey	\$ .10
" " Pull Chain Socket with Rigid or Adjust. Hickey	.30
Std. Base Turn or Tumbler	.50
Lever/Bracket Candle Sockets Lever	.75
" " " " Brass No. 103 to 120.	.75
" " " " Porcelain No. 121-122.	.75
" " " " Fibre No. 123-124.	.75
" " " " Brass Lever No. 127	.75
Intermediate Base Pull Candle Socket with Paper Jacket	1.75
Intermediate Base Keyless Candle Socket Porcelain	.50
Candelabra Type Keyless Socket	.50
Candelabra Type Pull Chain Socket	1.75

Keyless Porcelain Male	.....	8	4
Female	.....	3	3
Brass Shell 1/4 Cap	.....	6	6
Key Pull	.....	6	6
Brass Shell Push 1/4 Cap	.....	1	0

No.....	23	23A	33	34	91
Price.....	\$1.00	\$1.25	\$1.25	\$1.25	\$1.50

Porcelain Keyless		Price
One Piece with Threaded Cap.....		\$ .60
One Piece with Angle Cap Threaded.....		.80
Two Piece Body Only.....		.90
Two Piece with $\frac{1}{4}$ Brass Cap.....		.80
Two Piece with $\frac{3}{8}$ Brass Cap.....		.80
Two Piece with Pendant Cord Grip.....		1.00

Brass and Weatherproof	
Key Socket $\frac{1}{4}$ Cap.....	\$ .65
Keyless Socket $\frac{1}{4}$ Cap.....	.60
Pull Socket $\frac{1}{4}$ Cap.....	1.15
Push Socket $\frac{1}{4}$ " Cap.....	\$0.6
Wpf. Socket Wire Leads.....	.3

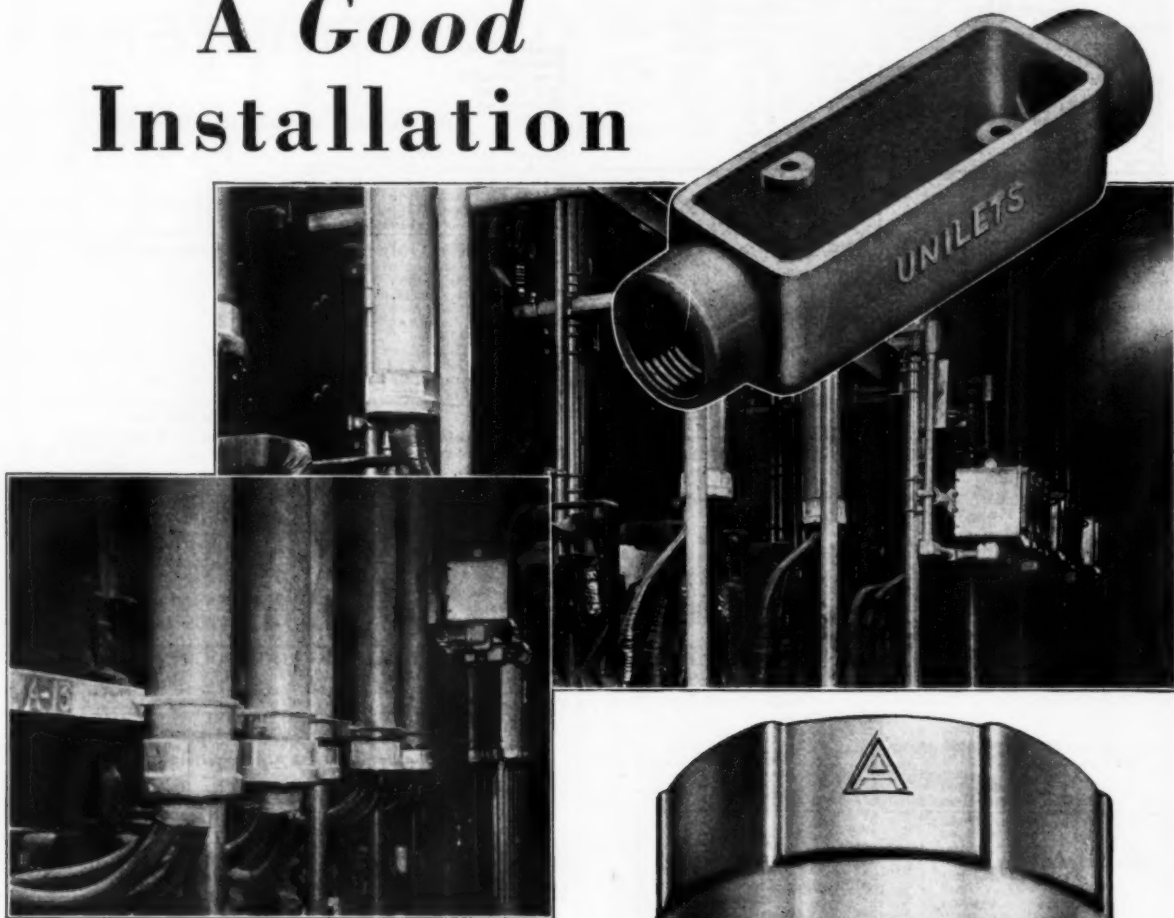
Adaptors for Socks—See Pages PL-4 and 18.	
Acorn Hubbell 6919-6982-7004—or Similar—Each	\$ .1
Acorn Luminous Hubbell 7015 Bryant 750 GE 860—or Similar—Each	3
Bushings Hard Rubber $\frac{3}{4}$ " Each .01c— $\frac{3}{4}$ " Each	0
Chain for Pull Sockets—Per Foot	1
Cord for Devices—Light Type—Per Foot	0
Cord for Devices—Heavy Type—Per Foot	0
Extension—Benjamin, No. 91	0
Handles for Sockets—Bryant 1240-1388—or Similar—Each	2
Splicing Links Non-Insulating for Chain—Each	0
Splicing Links Insulated for Chain—Each	0

## MOGUL SOCKETS

Arrow, Bryant, G. E., Hubbell, H. & H., P. & S., Weber

All Keyless		Body Only	With 3/8 or 1/2 or 3/4" Iron Yoke	With 3/8 or 1/2 or 3/4" Alum. or Brass Cap
Porcelain One Piece Socket Mogul		\$ .65	\$1.00	\$1.40
Two		.85	1.40	1.60
One	with Lead Wire	.85	1.40	1.60
Brass Shell Keyless Mogul Socket	3/8 or 1/2 Brass Cap			\$3.

# A Good Installation



The illustrations above are in the breaker switch rooms of the Brown Paper Mills, Monroe, La.

This is an unusually satisfactory and neat installation, showing the use of Appleton End Fittings as well as Appleton Unilets. Appleton End Fittings provide an easily applied and simple means of bushing the end of a conduit.

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STEELTUBES Electrical Metallic Tubing is now approved for OPEN and CONCEALED work, and buried in Concrete (except cinder fill) in sizes up to 2-inch nominal trade size.

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*Cleveland, Ohio*

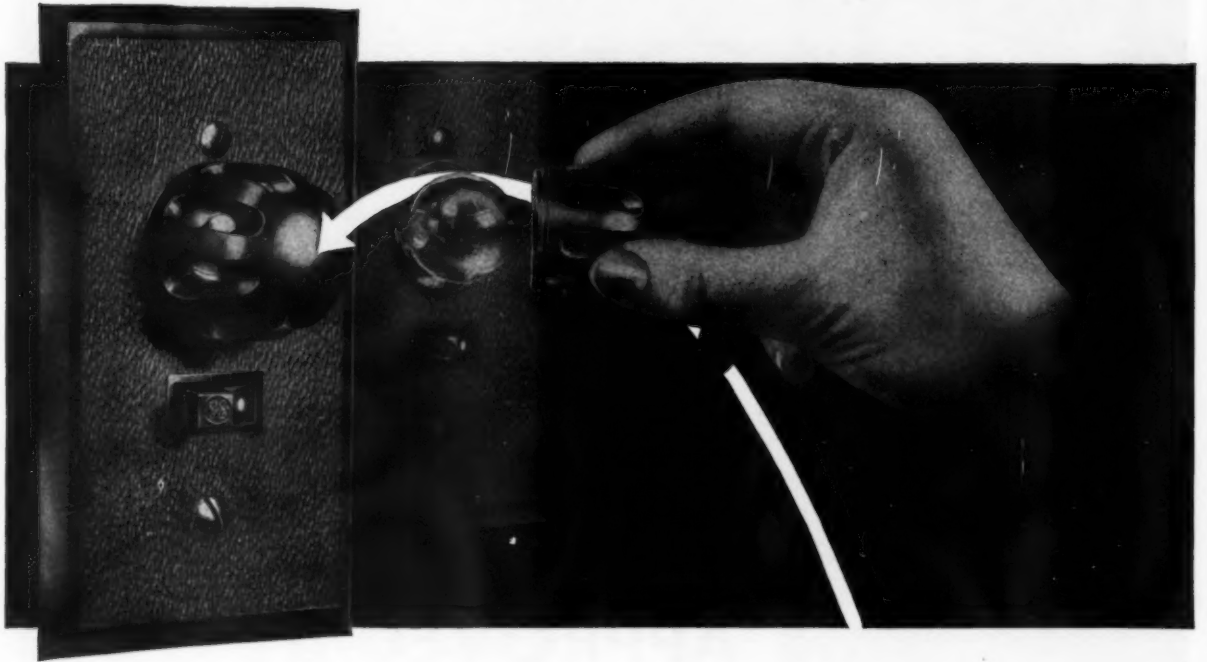
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# Steeltubes

THREADLESS THIN WALL CONDUIT

# G-E SWITCH AND PILOT LIGHT

ADD (\*) EXTRA QUALITY TO YOUR WORK



Little points of *extra quality* in G-E Wiring Devices can be of big importance to you . . . they can give your work superiority that customers notice . . . and talk about.

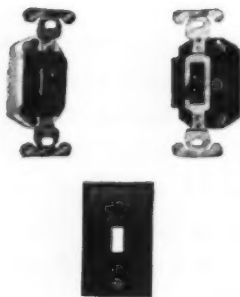
Consider this G-E Combination Switch and Pilot Light. The dome unscrews (\*) so that the lamp may be renewed without removing the plate.

The translucent dome glows (\*) cherry red when the lamp is lighted. It is made of moulded material that's hard to break (\*).

The tumbler switch is rugged (\*) for the longest service. And the plate is of handsome, stipple-finish textolite (\*) that doesn't mar or tarnish.

The G-E Monogram (\*) on every G-E Wiring Device is a symbol of quality recognized everywhere. Let it mark *your* wiring.

Wherever you sell G-E Wiring Devices there's a market for G-E appliances. Get *both* these profits!



G-E Textolite Flush Plates and G-E Tumbler Switches add ruggedness and beauty to good wiring

## GENERAL ELECTRIC

▶▶▶▶▶▶▶▶▶▶ Wiring Devices ◀◀◀◀◀◀◀◀◀◀◀◀

MERCHANDISE DEPARTMENT • GENERAL ELECTRIC COMPANY • BRIDGEPORT, CONNECTICUT

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Address.....

City..... State.....





### HEAVY DUTY WEATHERPROOF SOCKETS Copper or Aluminum Shell

All Keyless		Price
1 Piece with $\frac{3}{8}$ or $\frac{1}{2}$ Nipple		\$0.65
1 " " " Cord Grip		.65
2 " " " $\frac{3}{8}$ Nipple		.80
2 " " " " " "		.80
2 " " " Cord Grip		.80
Shadeholders for above sockets		Price
2 1/4 Aluminum or Copper Extra		\$0.35
3/4 " " " " "		.30
3/4 " " " " "		.65

### HEAVY DUTY SOCKETS—Benjamin

Price Each	
Benox Keyless Socket with Clamp Ring #4700 to 4703 Medium Base	\$1.25
" " without " " 4712 to 4715 " "	1.05
" " with " " 4706 to 4709 " "	2.00
Benox Keyless Socket Copper or Alum. #4200-1-4-5 & 4335 & 7	.75
" " Brass #4202-4203-4336	.90
" " Pull 4207-8 4225-26 4236-37 Brass, Copper or Alum.	1.50
" " Mogu Copper Clad #4210-4297	2.00
Benox Threaded Holders Only	2 1/4" 3 1/4" 4"
Polish. Alum. Weathpri—#4215 & 4217	.35 .60
Copper — 4370-72 & 73	.40 .60
Brushed Brass — 4377-79 & 80	.40 .60

### BENJAMIN MOGUL SOCKETS

With 1/2 or 3/4 Iron Yoke		Price
One Piece Socket with Lamp Grip	1.20	1.45
Two Piece Socket with Lamp Grip	1.20	1.70

### BENJAMIN REFLECTOR SOCKETS

With Type X or XR Fitting		Price
Porcelain or Similar		
Medium Base Keyless Tapped $\frac{1}{8}$ - $\frac{1}{4}$ - $\frac{1}{2}$ No. 4650-51 & 65		\$1.20
" " Self Locking $\frac{1}{8}$ - $\frac{1}{4}$ - $\frac{1}{2}$ No. 4528-29-30-32-33		1.60
" " Shock Absorb. $\frac{1}{8}$ - $\frac{1}{4}$ - $\frac{1}{2}$ No. 4676-77-78-80-81		1.45
" " Shock Absorb. Self Lock No. 4548-49-50-52-53		1.90
" " Pull Chain No. 4534-35 & 4660-61-67		2.05
Mogul Base Keyless Shock Absorb. No. 4670-71-72		1.95
" " Not Shock Absorb. No. 4656-57 4666		1.65
If X or XR Fitting not supplied on above sockets deduct		.45

### SWITCHES, FLUSH TUMBLER

Plates & Boxes Extra		Price
Square Handle Porcelain Cup—Sgl. Pole		\$1.15
" " " " 3 Way		.45
" " " " Dble.		.30
" " " " 3 Way		.30
" " " " 4 Way		.30
" " " " 20 Amp. Sgl. Pole Composition Cup		.90
" " " " 20 Amp. Dble. Pole Composition Cup		1.50
" " " " 3 Way		1.60
" " " " 4 Way		2.60
Round Handle Metal Porcelain Cup—Sgl. Pole		2.30
" " " " Dble.		.50
" " " " 3 Way		1.50
" " " " 4 Way		4.00

### New Circuit Type

Twin-2 Sgl. Pole Switches	\$1.40
Twin-1 Sgl. Three Way	1.55
Twin-2 3 Way Switches	1.75
Triplet-3 Sgl. Pole Switches	2.15
Triplet-2 Sgl. & 1-2 Way Switches	2.30
Lock Type Porcelain Cup—Sgl. Pole	1.85
" " " " Dble.	2.65
" " " " 3 Way	2.90
" " " " 4 Way	5.65
EXTRAS—For Luminous Tip add for Each Handle	.40
For Glo Guide Handle Switches add for Each	1.00

### TUMBLER SWITCH COMBINATIONS

Description		Price
6 A. S. P. Switch—Pilot Lt.—Textolite Plate		\$2.85
10 A. D. P. Switch—Pilot Lt.—060 Plate		3.30
10 " " " Receptacle " "		1.90
20 " " " 15A " " "		2.90
Switch—Tap & Pilot Light with " "		3.35
" " " " & Receptacle " "		1.75

### PLATES For Tumbler Switches

Price	
Stamped Brass Sprayed Finish .040 Thick	1 .10 2 .20 3 .30 4 \$1.10
" " " " Brush Brass .040	.15 .30 .45 1.35
" " " " Sprayed .060	.20 .40 .60 1.35
" " " " Brush Brass .060	.25 .50 .75 1.60
Bakelite or Composition Molded	.15 .30 .45 .80
Twin & Triple B. H. or Bakelite Plates	.25 .25 .25 .25
Comb. Switch and Recept.—Moulded Comp.	.30 .40 . . .
" " " Pilot Light	.75 . . . .
Hubbell Bakelite Screwless Plates	.60 1.10 1.60 2.25
Bryant DeLuxe Wood Inlaid any Finish	2.75 4.70 7.70 . . .
" " " All Metal	1.00 1.75 2.45 . . .
Guth Porcelain Enamel Plates	.25 .60 1.00 . . .
Glass Mirror Plates	1.00 1.75 2.50 3.25
Blank Plate .040 Brush Brass Finish	.30 .60 .90 . . .

### SWITCHES, FLUSH PUSH

Plate & Boxes Extra		Price
Standard Shallow Type Porcelain Cup—Single Pole		\$0.40
" " " " Double		1.60
" " " " 3 Way		.80
" " " " 4 Way		4.60
Deep Type Porcelain Cup—Single Pole		.58
" " " " Double		1.60
" " " " 3 Way		.80
" " " " 4 Way		4.60

### Plate and Boxes Extra—Continued

Price	
Special High Grade Composition Cup—Single Pole	\$1.65
" " " " Double	2.00
" " " " 3 Way	2.00
" " " " 4 Way	4.60
Lock Type Standard Porcelain Cup—Single Pole	2.00
" " " " Double	2.00
" " " " 3 Way	2.65
" " " " 4 Way	5.50
Electrolite Non-Indicating	2.50
" " Indicating	2.70
Extra for Luminous Button Add Per Switch	.40

### PUSH SWITCH COMBINATIONS

With Plates		Price
Bryant 117 D. P. Indic. Switch Flush Receptacle & .060 Plate		\$2.50
413 One Push Switch—Bulls Eye and Solid Plate		4.80
518 " " " Disap. Door Recp. Bulls Eye—Solid Plate		8.85
465 " " " D. P. Flush Switch & Pilot Lamp .060 Plate		3.90
467 " " " Flush Switch—Flush Recept.—Bulls Eye—Solid Plate		6.15
558 " " " Duplex		7.00

### PLATES For Flush Push Switches

Price	
Description	1 2 3 4
Stamped Brass Sprayed Finish .040 Thick	\$ .15 \$ .30 \$ .45 \$1.10
" " " " Brush Brass .040	.20 .60 .80 1.35
" " " " Sprayed .060	.25 .50 .75 1.35
" " " " Brush Brass .060	.30 .60 .90 1.60
Bakelite or Composition	.20 .40 .60 .80
Bryant DeLuxe Plates Wood Inlaid	2.75 4.70 7.70 . . .
" " " All Metal	1.00 1.75 2.45 . . .
Guth Porcelain Plates	.25 .60 1.00 . . .
Glass Mirror Plates	1.00 1.75 2.50 3.25
Blank Plate .040 Brush Brass Finish	.30 .60 .90 . . .
Combination Switch & Receptacle Moulded	.30 .40 . . . .
" " " Push & Recept. Plates .060 Brass	.50 . . . .
" " " " " Guth Enamel	.65 . . . .
" " " " " Mirror Glass	1.75 . . . .

### SWITCHES, SURFACE SNAP

#### METAL COVERED SNAP SWITCHES

Type		Size	5 Amp.	10 Amp.	20 Amp.	30 Amp.
Poles	Volts	Pony				
Single	125	Non-Indicating	.35	.40	.40	.40
"	"	Indicating	.40	.40	.40	.40
"	"	Non-Indicating	.60	.80	1.50	2.30
"	"	Indicating	.65	.90	1.65	2.45
Double	250	Non-Indicating	.95	1.10	2.30	2.90
"	"	Indicating	1.05	1.25	2.45	2.95
Triple	"	Non-Indicating	. . .	3.10	3.90	4.50
"	"	Indicating	. . .	3.30	4.10	5.00
3-Way	125	Non-Indicating	1.10	1.75	2.45	2.95
4-Way	"	Non-Indicating	1.40	3.15	4.10	5.00
Electrolite	"	Non-Indicating	. . .	2.10	3.20	4.10
"	"	Indicating	. . .	2.30	3.40	4.10

#### ALL PORCELAIN SNAP SWITCHES

Type		Size	5 Amp.	10 Amp.	20 Amp.	30 Amp.
Poles	Volts	Pony				
Single	125	Non-Indicating	.30	.40	.40	.40
"	125	Indicating	.70	.80	.80	.80
"	125	Non-Indicating	.75	1.10	1.75	2.60
"	125	Indicating	.85	1.15	1.90	2.75
Double	250	Non-Indicating	1.00	1.30	2.60	3.05
"	250	Indicating	1.20	1.45	2.80	3.15
3-Way	125	Non-Indicating	1.00	1.45	2.80	3.15
4-Way	125	Non-Indicating	1.60	3.20	4.10	5.00
Electrolite	125	Non-Indicating	. . .	1.60	3.20	4.10
"	125	Indicating	. . .	1.80	3.40	4.10

#### TUMBLER OR TOGGLE SNAP SWITCHES

Metal or Composition Covers		Single Pole	Double Pole	3 Way	4 Way
125-250 Volt					
5 Amp. Closed or Slott. Base		\$ .40	.95	.90	\$1.60
5 Amp. with Outlet Box Cover 3 1/4" or 4"		.60	. . .	1.00	. . .
10 Amp. Closed or Slott. Base		.90	1.25	1.35	. . .

#### SNAP SWITCHES FOR WOOD MOLD, CONDULETS, ETC.

Metal Covered		Non-Indicating	Indicating	Indicating	Indicating
Single Pole	5 Amp. 125 Volts	.65	.60	.75	.70
Double	"	1.20	1.10	1.20	1.15
Three Way	"	1.00	1.00	1.20	. . .
Electrolite	"	1.50	1.50	. . .	. . .

#### PARTS FOR SNAP SWITCHES

Price	
Handles—Standard Type Each	\$ .12—Ratchet Type .20
Bases—Porcelain 5 Amp. \$ .12—10 Amp. \$ .15—20 Amp. .30	
Covers—10 Amp & Under Metal \$ .15—Porcelain .20	
Over 10 Amp. .30	

### SWITCHES, PULL CORD, CHAIN, CANOPY, LEVOLIER, ETC.

#### PULL CORD SWITCHES—BODIES ONLY

Small Socket Type		Price
Ceiling—Bottom Pull		\$1.00
Wall—Side Pull		1.00
Rosette—Side Pull		1.00
Fixture—Bottom Pull		1.25
1 1/2" Brass Cap		.30
2" Brass Cap		.30
Small Cleat Base		.40
Small Slotted or Concealed Base		.35
Large Concealed Base		.40
Wood Moulding Base		.35
Small Box Base Brass Covered		.50
3 1/2" Box Base Brass Covered		.85
4" Box Base Brass Covered		1.10
3 1/2" Box Cover with Ring		.35
4" Box Cover with Ring		.25

These prices apply only to the United States

Electrical Contracting, August, 1931

### CEILING PULL SWITCHES MOUNTED ON OUTLET BOX COVERS

Arrow—H & H or Equal	
5020 For 3 1/4" Outlet Box Single Pole.....	\$2.25
2021-25 " 3 1/4" " D. P.—3 & 4 Way-2-3 Circuit.....	2.75
5026 " 4" " Single Pole.....	2.40
2027-31 " 4" " D. P.—3 & 4 Way-2-3 Circuit.....	2.85

### HEAVY DUTY PULL CORD SWITCHES, METAL COVER

With 8 Feet Heavy Cord	Price
S. P. with Small Porc. Slotted or Solid B.....	\$2.30
D. P. with Small Porc. Slotted or Solid B.....	2.00
3 & 4 Point with Small Porc. Slotted or Solid B.....	2.00

These switches can be furnished with side or bottom open, at same price.

### TYPE "O" PULL SWITCHES

#### For Ceiling Fixtures or Ceiling Fans

Single or Double Pole—3 & 4 Point Electroliner & Motor Control—Similar to Bryant #2473 to 2480 with 1/2 Caps, cord & Ball Each.....	\$3.00
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### CANOPY SWITCHES

	Price
Rotary Canopy Switches any style any make (except below).....	\$ .35
Tumbler Canopy Switches similar to G. E. 2381.....	.55
Pull Type P & S—3316 or 17—Arrow 340—Bryant 606.....	.90

### LEVOLIER PULL SWITCHES

#### McGill Co.

Two-Lite Canopy or Fixture Switch #50-51-52.....	\$1.00
Link Switch #59.....	1.00
Conduit Box & Fixture Switch #61-62 & 63.....	1.00
Switch Hickey 64 & 64 A for above.....	.15

### PENDANT SWITCHES

#### With Brass Pendant Cap

Brass Shell Pend. Cap Side Button.....	\$ .65
" " " Bottom.....	.90
" Type "O" " Side.....	2.50
All Porcelain.....	.60
(10 Amps).....	.85
Pendant Switch & Current Tap. Comp.....	1.00

### FEED THROUGH SWITCHES

FEED THROUGH SWITCHES		Price
Metal Feed Thru Switch.....		.50
Composition Feed Thru Switch. Flat Back.....		.50
Composition Feed Thru Switch. Egg Shape.....		.50
Composition Feed Thru Switch. Pony.....		.45

### DOOR SWITCHES

	Price
Open Circuit—No Box.....	\$3.00
Closed.....	3.70
Iron Box for Door Switch.....	.90

### DOOR SWITCHES & OPENERS

#### Edwards—commonly used types

#0	Door Opener Mortise Type \$ 2.75	#152 Rim Type Flush.....	Price
48	" " " 31.25	#152 for Surface Conduit.....	25.25
48A	" " " 34.25	154 Mortise Type.....	5.75
50	" " " 31.25	153 Plate Type.....	7.00
50A	" " " 34.25	174 Door Switch.....	8.65
51	" " " 34.25	2000 Box for 174 Door SW.....	1.30
51A	" " " 35.25	1541 Opener Mortise Type.....	10.50
52	" " " 38.25		
#239—Latch for #52	" " " 3.50		

#### Partrick & Wilkins commonly used types

Mortise Type.....	\$2.75	Rim Type.....	\$4.25
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### MOTOR STARTING SWITCHES

#### For Small A. C. Motors

#### Arrow or H & H

	Double Pole 5 Amp. 600 Volt Price	Double Pole 30 Amp. 250 Volt Price	Triple Pole 30A. 250V—20A. 600 V. Price
1/4 H. P.....	\$2.20	\$2.40	\$4.90
1 H. P.....	2.30	2.30	5.10
1 1/2 H. P.....	2.45	2.45	5.30
2 H. P.....	2.70	2.70	5.55

#### Bryant

Sentinel Circuit Breakers Single Pole for Protection of Fractional H. P. Motors No. BSB-1-2-4-6-8-10-12 and 14.....	\$2.65
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#### Trumbull

#### Small Motor Starting Switches

No. 2221 —2 Pole 30A. 125 Volt—20A. 250 Volt—3A. 600 Volt without Overload Protection.....	\$2.00
No. 2361 —3 Pole 30A. 125-250 Volt—3A. 600 Volt without Overload Protection.....	5.00
No. 2222-6—Single Pole up to 1/4 H. P. 230 Volt A. C. and 1/4 H. P. 115V. A. C. with Thermostatic Overload Protection.....	2.90

### SWITCHES, KNIFE, ENTRANCE & PANEL

#### ENTRANCE & PANEL SWITCHES

#### 30 Amp. 125 Volts, Plug Fused

Description	Location of Fuses	Price
Double Pole, Rev. Blades.....	Top	\$ .80
" " " ".....	Bottom	.80
" " " ".....	Top	.85
" " " ".....	Bottom	1.25
Triple.....	Top	1.30
" " " ".....	Bottom	1.30
Double Pole Single Branch.....	Top	1.30
" " " ".....	Bottom	1.30
" " " ".....	Top	1.50
" " " ".....	Bottom	1.50
Double Pole—Double Branch Vert. Mains.....		3.00
" " " ".....		3.00
Trip. to D. P. Double Branch Vert. Mains.....		3.15
" " " ".....		3.15

These prices apply only to the United States

Electrical Contracting, August, 1931

### BABY KNIFE SWITCHES—Any Make

Any Make	Porcelain Base 125 Volt	Slate Base 250 Volts
	15 Amp. 30 Amp.	15 Amp. 30 Amp.
Single Pole	Single Throw.....\$ .50	Single Throw.....\$ .60
" " " ".....	.85	1.00
Double " ".....	.60	.70
" " " ".....	1.00	1.30
" " " ".....		1.40

### TYPE "C" OPEN KNIFE SWITCHES

#### Slate Base Front Connected

Front Connected Slate Base	Not Fusible	Fusible
	2 Pole	2 Pole
Sgl. Throw 30 A. 250 V. Only.....	\$1.15	\$1.65
250 & 500 V. AC.....		
" " 30 A.....	1.75	2.65
" " 60 A.....	2.00	3.00
" " 100 A.....	4.10	6.20
" " 200 A.....	7.45	11.15
Dbl. Throw 30 A. 250 V. Only.....	1.90	2.95
250 & 500 V. AC.....		
" " 30 A.....	2.80	4.40
" " 60 A.....	3.30	5.10
" " 100 A.....	7.40	11.40
" " 200 A.....	12.35	19.15

### SWITCHES, REMOTE CONTROL

#### TYPE "F"—"DIAMOND H"

Amps	Single Pole	Double Pole	Three Pole	Four Pole
	Cat. No. Price	Cat. No. Price	Cat. No. Price	Cat. No. Price
30	716 \$ 30.00	730 \$ 36.00	790 \$ 43.20	810 \$ 54.00
60	717 43.00	740 48.00	800 54.00	820 68.00
75	718 50.00	750 55.00	810 60.00	830 76.00
100	719 56.00	760 59.00	820 67.00	840 87.00
150	723 100.00	770 108.00	830 124.80	845 146.00
200	724 112.00	780 122.40	840 139.20	850 168.00

### SWITCHES, RESIDENCE, METER SERVICE, INDUSTRIAL, ETC.

#### SQUARE D

For Cadmium Plated or Galvanized Switches Add 40%

#### SMALL SERVICE ENTRANCE SWITCHES

#### 30 Amp. "Square D" Switches Residence Type

Numbers	Volts	Description	2 Pole	3 Pole
97211-97311	125	For Plug Fuse Solid Neut.....	\$1.70	\$2.50
99211-99311	125	Neut. Fused.....	1.75	3.00
78211-78311	125	" " " Meter Test.....	2.55	4.10
1211	125	Porc. Entr. Switch.....	1.80	.....
97251-97351	250	Encl. Fused Solid Neut.....	1.70	3.20
99251-99351	250	" " " Fused Neut.....	2.50	4.35

#### METER SERVICE SWITCHES

#### Branch Fuses, Cabinets Attached and Wired Accessible Main Fuses

Cat. No.	Amps.	Volts	Poles	Neutral	Main Fuses	Branch Fuses	Price
SK-2188.....	30	125	2	Solid	1	4	\$6.75
SK-2189.....	30	125-250	3	"	2	4	7.75
SK-2187.....	30	125	2	"	1	2	6.00
SK-2197.....	30	125	2	"	2	4	7.25
SK-2235.....	30	125	2	"	2	2	6.50

#### ENTRANCE RANGE AND LIGHTING SWITCH

No. 38372..... Range & Lighting Switch 1-60A. 250V. & 4-30A. 125V. Br.	\$23.80
No. SK-2259. Back Meter Plate & Switch Support for Above.....	2.00

#### SERVICE SWITCH

#### Two Meter Combination

No. 38312 For Range—Water Heater—Lighting Circuits.....	\$7.35
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#### METER SERVICE SWITCHES

#### "Square D" Accessible Main Fuses Without End Walls

Amps.	Poles	Fused For	Neutral	Meter Test Type	Price	Non-Meter Test Type	Price
30	2	2 Plug	Fused	30211	\$ 4.00	10211	\$ 3.65
30	2	1 " "	Solid	30231	3.50	10231	3.30
30	3	2 " "	"	30331	4.50	10331	4.00
30	2	2 Enc.	Fused	30251	4.80	10251	4.60
30	2	1 " "	Solid	30271	3.90	10271	3.90
30	3	2 " "	Solid	30371	4.80	10371	4.60
60	2	2 " "	Fused	30252	15.10	10252	14.20
60	2	1 " "	Solid	30272	14.20	10272	13.30
60	3	2 " "	Solid	30372	16.00	10372	15.05
100	2	1 " "	Fused	30253	23.85	10253	22.10
100	2	1 " "	Solid	30273	23.85	10273	22.10
100	3	2 " "	Solid	30373	25.60	10373	23.85





## Switches

## Switches

TYPE "A" SWITCHES  
Single Throw—Series 4111

Non-Fusible 250DC or 500-600 AC			
Amps	2 Pole	3 Pole	4 Pole
20	4111H748 9.55	4111H84811 40	200 4111H77428.20 4111H87434.60
30-60	4111H75 13.65	4111H85 15.95	400 4111H78 81.90 4111H88 91.00
100	4111H76 20.95	4111H86 24.10	250 V. only.

## MOTOR STARTING SWITCHES

Manual Operated			
Single Pole Push Button with Overload Protection			
Type of Switch	Type of Relay	Number	Price
Open.....	Fast Trip	9101H1	22.85
Enclosed....		9101H2	3.70
Open.....	Slow	9101H54	2.85
Enclosed....		9101H55	3.70

Cutler-Hammer			
Single Pole Push Button with Overload Protection			
Type of Switch	Type of Relay	Number	Price
Open.....	Fast Trip	115 V. 110 V. 220 V.	Cycles
Enclosed....		H. P. H. P. H. P.	25-60
Open.....	Slow		
Enclosed....			

Series	Description	Amps	Volts	2 Pole	3 Pole	4 Pole
4151H1	Light Duty Motor Sw. 1/2 HP or Less	30	115	\$ 1.65		
9115H1	Motor Switch with Thermal Cutout	30	To 560	\$13.90	\$19.30	
4231H	For infrequent Duty 5 HP.	30	220	6.85	9.75	
4240H	For infrequent Duty 5 HP.	30	220	12.55	13.20	16.65
4246H	For infrequent Duty 7 1/2 HP	30	440	19.65	23.65	
4246H	For infrequent Duty 7 1/2 HP	60	220	17.30	19.65	26.85

## SMALL ENTRANCE SWITCHES

Trumbull Electric Closed or Open Ends			
Numbers	Amps.	Volts	Fusing
5790 EW Porc. Base.....	30	125	For 1 Plug Fuse..... \$1.65
5791-2-3-4 & 5893.....	30	125	Plug Fuses..... 1.85
5891-5892 Porc. Base.....	30	125-250	Enclosed Fuses..... 1.85
13640-13641 Kappa.....	30	250	No Fuse-Slate Base..... 2.75
13642-43 & 13743 Kappa.....	30	250	For Enclosed Fuses..... 2.75
13321-13321 Quick Break.....	30	250	..... 3.55

## STANDARDIZED MAIN ENTRANCE SWITCHES

Trumbull Electric Single Phase or DC Solid End Plate			
Numbers	Amps.	Volts	Fusing
16361 to 16368.....	30	125-250	For Plug Fuses..... \$3.30
16371.....	30	250	Enclosed Fuses..... 3.65
16381.....	60	250	..... 9.25
16391.....	100	250	..... 15.85

## STANDARDIZED METER SERVICE SWITCHES

Trumbull Electric For Meter Testing Open End Without End Walls			
Numbers	Amps.	Volts	Fusing
16300 to 16309.....	30	125-250	For Plug Fuses..... \$ 2.05
16316.....	30	250	Enclosed Fuses..... 3.45
16330.....	60	250	..... 8.45
16341.....	100	250	..... 15.05

## ACCESSIBLE FUSE METER SWITCHES

Trumbull Electric With Test Blades With and Without End Walls			
Numbers	Amps.	Volts	Fusing
18111.....	30	125	For 1 Plug Fuse..... \$ 3.55
18211-18211.....	30	125	Plug Fuses..... 4.05
18211.....	30	125-250	1 Enclosed Fuse 3.95
18221-18221.....	30	250	Enclosed Fuses..... 4.90
18122-222-322.....	60	250	..... 15.50
18123-223-323.....	100	250	..... 24.65

Without Test Blades			
Numbers	Amps.	Volts	Fusing
19111.....	30	125	For 1 Plug Fuse..... \$ 3.35
19211-19211.....	30	125-250	Plug Fuses..... 3.70
19211.....	30	250	1 Enclosed Fuse 3.95
19221-19221.....	30	250	Enclosed Fuses..... 4.65
19122-222-322.....	60	250	..... 14.50
19123-223-323.....	100	250	..... 23.35

## SEALED FUSE METER SWITCHES

Trumbull Electric With Test Blades With and Without End Walls			
Numbers	Amps.	Volts	Fusing
115827.....	30	125	For 1 Plug Fuse..... \$ 2.40
128111-28211-28311.....	30	125	Plug Fuses..... 3.55
128121.....	30	125	1 Enclosed Fuse 3.85
128221-28221.....	30	125-250	Enclosed Fuses..... 4.10
128122-28222-28322.....	60	250	..... 13.25
128123-223-323.....	100	250	..... 22.00

Without Test Blades			
Numbers	Amps.	Volts	Fusing
129111.....	30	125	For 1 Plug Fuse..... \$ 3.10
129211-29211.....	30	125-250	Plug Fuses..... 3.10
129121.....	30	125	1 Enclosed Fuse 3.45
129221-29221.....	30	250	Enclosed Fuses..... 3.75
129122-222 & 322.....	60	250	Enclosed Fuses..... 12.35
129123-223 & 323.....	60	250	Enclosed Fuses..... 20.70

## UNIVERSAL METER SERVICE SWITCHES

Trumbull Electric Without End Walls			
Numbers	Amps.	Volts	Fusing
971-123.....	30	125	For 1 Plug Fuse..... \$3.75
972-123.....	30	125	For 1 Plug Fuse..... 4.70
973-333.....	30	125	For 2 Plug "Solid Neu."..... \$4.10
974-333.....	30	125	For 3 Combinations..... 5.30
979-333.....	30	125	For 4 Combinations..... 5.30

## POLYPHASE ENTRANCE &amp; METER SWITCHES

Trumbull Electric			
Series Nos.	Style	30 Amp.	60 Amp.
16379	Entrance—"DO-ALL"	3 Wire 4 Wire	3 Wire 4 Wire
16381-16383	Acc. Fuse—Test Conn.	\$ 4.70	\$ 7.70
17321-17323	Acc. Fuse without Test Conn.	11.60 \$15.60	\$21.10 \$37.00
26321-26323	Sealed Fuse with Test Conn.	10.95 12.80	19.40 22.00

Series Nos.	Style	3 Wire 4 Wire	100 Amp.
15321-15323	Acc. Fuse—Test Conn.	\$30.80 \$47.50	
17321-17323	Acc. Fuse without Test Conn.	29.05 33.45	
26321-26323	Sealed Fuse with Test Conn.	27.30 44.00	

## ENTRANCE RANGE AND LIGHTING SWITCH

#18422-2W Switch with 1-60 A., 250 V. & 2-30 A. 125 V. Branches.....	\$23.00
18422-4W Switch with 1-60 A., 250 V. & 4-30 A. 125 V. Branches.....	23.80

## END WALLS, SHUTTERS, TROUGHS, ETC.

Trumbull Electric			
End Wall One Piece for Standardized Switches.....	30 A.	60 A.	100 A.
End Wall One Piece for Polyphase Switches.....	\$ .30	\$ .80	\$ .80
Shutters for End Walls for Standardized Switches.....	.15	.30	.30
Shutters for End Walls for Polyphase Switches.....	.15	.30	.30
Troughs 2-3" & 4".....	\$ .40	\$ .45	\$ .50

## TYPE "A" INDUSTRIAL SWITCHES

Trumbull Single Throw, Quick Make & Break			
Amp	2 Pole AC-DC	3 Pole AC Only	2 Pole AC-DC
30.....	72221 \$10.95	72321 \$13.65	36221 \$ 9.60
60.....	72222 13.65	72322 18.20	36222 11.85
100.....	72223 20.95	72323 27.30	36223 20.00
200.....	72224 36.40	72324 41.00	36224 25.50

## Trumbull "SNUF-ARC" TYPE

Fusible			
Amp	2P. 230-575 AC & DC	3P. 230-575 AC Only	No Fuse 2P. 575V AC & DC
30.....	72261 \$16.40	72361 \$20.00	36261 \$12.75
60.....	72262 17.30	72362 21.00	36262 13.65
100.....	72263 27.30	72363 31.85	36263 20.95
200.....	72264 43.25	72364 52.80	36264 28.20

## TYPE "C" SWITCHES

Trumbull Single Throw, Quick Make & Break			
Amp	2 Pole AC-DC	3 Pole AC Only	2 Pole AC-DC
30.....	40221 \$ 5.50	40321 \$ 6.85	20221 \$ 5.00
60.....	40222 8.20	40322 10.00	20222 8.20
100.....	40223 12.75	40323 15.50	20223 10.95
200.....	40224 20.00	40324 26.40	20224 19.10

Fusible			
Amp	2P. 230 AC-DC	3 Pole VAC	Solid Neutral 2 Pole
60.....	44222 \$ 8.65	44322 \$10.50	43222 \$ 9.55
100.....	44223 13.20	44323 15.95	43223 15.00
200.....	44224 20.50	44324 26.85	43224 23.20

## WESTINGHOUSE

## All 30 Amp. Porcelain Base

2 Pole			
Numbers	Amps.	Volts	Fusing
"Midget"—S. N.—1 Blade—1 Fuse—#62612 & 62613.....	30	125	\$1.75
"Type 00"—Fusible—125-250 V.—Plug Fuses.....	30	125	1.80
"S. N.—3 Blades—250 V.—Plug Fuses.....	30	125	1.75
"Not Fusible—2 Blades—250 Volt.....	30	125	2.55
"Fusible Cart. Fuses—250 V.....	30	125	2.45
"S. N. 250 V.....	30	125	2.45
"Type WK-45"—Fusible Cart. Fuses—3 Blades.....	30	125	2.45
"Type WK-45"—250 V. Fusible Cart. Fuses.....	30	125	2.45
"2 & 3 Blades—250 V.....	30	125	2.45
"Type WK-45"—Non-Fusible—2 and 3 Pole—3 Blades.....	30	125	2.45

## TYPE C METER ENTRANCE

Westinghouse "WK-62" Quick Break			
Amp	2 Pole	3 Pole	4 Pole
60 Amp.—230 Volts.....	\$2304 \$ 9.15	\$2305 \$10.90	\$2307 \$13.60
100 —230.....	\$2308 13.60	\$2309 17.25	\$2311 20.05
200 —230.....	\$2312 21.80	\$2313 29.05	\$2315 47.20

## SOLID NEUTRAL FUSIBLE

2 Blades—2 Fuses 3 Blades—2 Fuses			
Amp	2 Pole	3 Pole	4 Pole
60 Amp.—3 Poles.....	\$2332 \$ 9.15	\$2336 \$10.90	\$2338 \$13.60
100 —3.....	\$2333 14.55	\$2337 17.25	\$2339 20.05
200 —3.....	\$2334 22.70	\$2338 29.05	\$2340 47.20

## UNIVERSAL METER SERVICE SEALED MAIN FUSES

Westinghouse "WK-57" Meter Testing			
One & Two Circuit	All 30 Amp.	Four Circuit	
57924 \$3.70	57925 \$5.00		
57926 4.05	57927 4.60		
57928-31 3.60	57928 3.60		
57498 5.25	57500 5.25		

## STANDARDIZED METER SWITCHES

Westinghouse "WK-54" Without End Walls			
Amps.	Fused	Dead Fuse Type	Live Fuse Type
30	Plug	61140 \$ 2.40	60224 \$ 2.95
30	Enclosed	61143 3.50	59441 2.95
30	Enclosed	61139 3.80	54371 3.30
30	Enclosed	61145 4.10	59443 4.05
60	Enclosed	61150 12.80	59461 8.40
100	Enclosed	61152 21.10	59463 14.95

## METER SERVICE AND ENTRANCE SWITCHES

ACCESSIBLE FUSE TYPE			
Westinghouse "WK-65"			
Amps.	Fused	With Test Facilities	Without Test Facilities
30	Plug	65000 \$ 3.50	65010 \$ 3.30
30	Enclosed	65001 4.00	65011 3.65
30	Enclosed	65005 3.90	65063 3.90
30	Enclosed	65003 4.55	65004 4.85
60	Enclosed	65005 14.95	65015 14.10
100	Enclosed	65007 23.70	65008 25.45

These prices apply only to the United States



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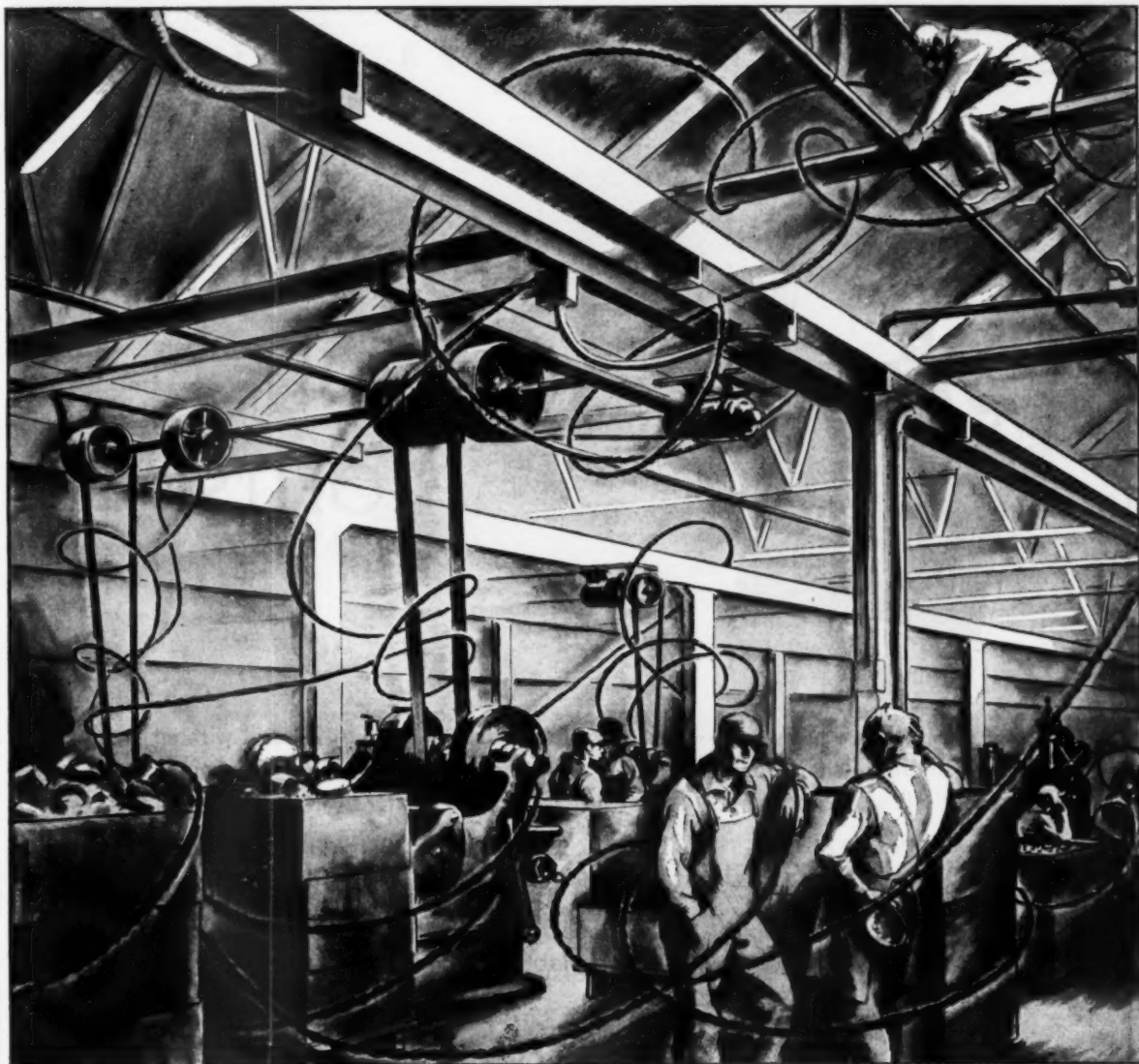
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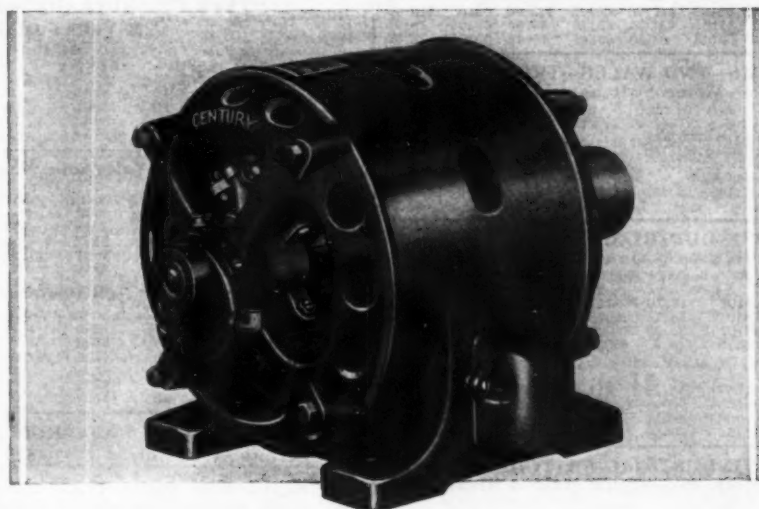
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*1/4 Horse Power Century  
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In starting compressors, electrical refrigerators, reciprocating pumps and other similar hard-to-start apparatus, the high-starting torque of Century Single Phase Motors (brush-lifting type) is a feature of particular value... In addition, their low-starting current generally permits the use of full-load operating fuses for starting... "They Keep a-Running".

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# PL-24

## Switches

POLYPHASE METER SWITCHES					
Westinghouse "WK-54"—Sealed Main Fuses					
30 Amp.	#60266—3 Pole	230 Volt AC—Less End Wall	.....	\$11.00	
60	#60267—3	230	.....	16.70	
100	#60268—3	230	.....	26.30	

Westinghouse "WK-65"—Accessible Fuses					
Meter Test 3Phase 4W.-S.N. Non-Meter Test					
30 Amp.—Less End Walls	.....	65100	\$11.00	65143	\$15.00
60	.....	65101	20.20	65146	35.95
100	.....	65102	29.80	65141	46.45

METER TRIMS—END WALLS—TROUGHS					
For Meter Switches					
One Piece Meter Trims	.....	30 Amp.	60 & 100 Amp.		
Blank End Wall or Shutter Type End Wall	.....				
Shutter Type Meter Trim or Adapter Trim	.....				
New Universal Trim with Slide	.....				
Replacement Plate or Adapting Plate	.....				
Wiring Trough 2-3 & 4" long. 40c—5" 45c—6" 50c—7" 55c—8" 60c.	.....				
Fuse Receptacle #R57252	.....	Less Fuses	.....	\$1.25	

"TYPE A" INDUSTRIAL SWITCHES					
Westinghouse "WK-66"—Quick Make & Break					
250 V. DC—230 V. AC—Fusible 600 V. DC—575 V. AC—Fusible					
Amps.	2 Pole	3 Pole	2 Pole	3 Pole	
30	#60100 \$10.90	#60101 \$12.70	#60020 \$16.35	#60021 \$19.95	
60	#60103 13.60	#60104 18.15	#60023 17.25	#60024 20.90	
100	#60106 20.90	#60107 27.25	#60026 27.25	#60027 31.75	
200	#60109 36.30	#60110 40.85	#60029 42.65	#60030 52.65	
250 V. & 600 V. DC Non-Fusible 230 & 575 V. AC—Non-Fusible					
Amps.	2 Pole	3 Pole	2 Pole	3 Pole	
30	#60127 \$ 9.55	#60128 \$11.35	#60129 \$16.35		
60	#6047 13.60	#6048 16.35	#6049 21.80		
100	#6050 20.90	#6051 24.50	#6052 31.75		
200	#6053 36.30	#6054 40.85	#6055 52.65		

"TYPE C" INDUSTRIAL SWITCHES					
Westinghouse "WK-97"—Quick Make & Break					
250 V. DC—230 V. AC—Fusible 575 Volt AC—Fusible					
Amps.	2 Pole	3 Pole	2 Pole	3 Pole	
30	#597100 \$ 5.45	#597101 \$ 6.80	#597151 \$10.90	#597152 \$18.15	
60	#597103 8.15	#597104 10.00	#597154 13.60	#597155 19.95	
100	#597106 12.70	#597107 15.45	#597157 21.80	#597158 36.30	
200	#597109 19.95	#597110 26.30	#597160 35.10	#597161 51.75	
250 V. DC & 230 V. AC—Non-Fus. 575 Volts AC—Non-Fusible					
Amps.	2 Pole	3 Pole	2 Pole	3 Pole	
30	#62010 \$ 5.00	#597011 \$ 6.35	#597054 \$10.90	#597055 \$18.15	
60	#62013 8.15	#597014 10.00	#597056 13.60	#597057 19.95	
100	#62016 12.70	#597017 15.45	#597058 21.80	#597059 36.30	
200	#62019 19.95	#597020 26.30	#597060 35.10	#597061 51.75	

ENTRANCE SWITCHES					
Noark Closed Ends					
Number	Amp.	Volt	Fuses	Blades	Neutral 2 Pole 3 Pole
8283.....	30	125	1 Plug	1	Solid \$1.75
8383.....	30	125	2	2	Fused 1.80
8394.....	30	125-250	2	2	Solid \$2.90
8683.....	30	250	2 N.E.C.	2	Fused 1.80
8693.....	30	125-250	2	2	Solid 3.20
8136-1.....	60	125-250	2	2	Fused 7.25
8226-1.....	60	250	2	2	Fused 6.65
8131-1.....	100	125-250	2	2	Solid 11.90
8221-1.....	100	250	2	2	Fused 10.25

METER SERVICE SWITCHES					
Noark Sealed Service SECO Without End Walls					
Sealed Service	Amp.	Volt	Fuses	Blades	No End Walls
9993.....	30	125	1 Plug	1	Solid \$2.40
9543.....	30	125	2	2	Fused 3.50
9553-9523.....	30	125-250	2	2	Fused-Solid 3.50 \$3.75
9563.....	30	125-250	2 N.E.C.	2	Fused 4.10
9533.....	30	125-250	2	2	Solid 4.30
9573.....	30	125	1	1	" 3.80
96576.....	60	230	1	1	" 11.90
96566.....	60	250	2	2	None 12.80
96536.....	60	125-250	2	2	Solid 13.65
96561-96571	100	250	1 or 2	1 or 2	None 21.00
96531.....	100	125-250	2	2	" 22.85

Noark Meter Service & Entrance ACCO Without End Walls					
Amps.	Fused For	Meter Service Test Type	Entrance Non Test		
		2 Pole	3 Pole	2 Pole	3 Pole
30A	Plug	#9343 \$ 3.55	#9323 \$ 4.50	#8343 \$ 3.30	#8323 \$ 4.00
30A	.....	#9353 4.00	#9333 4.85	#8353 3.65	#8333 4.60
30A	Enc.	#9363 4.85	#9343 5.80	#8363 4.60	#8343 5.60
30A	.....	#9373 3.90	.....	#8373 3.90	.....
60A	.....	#6366 14.95	#6336 15.80	#7636 14.10	#7636 14.95
100A	.....	#6361 23.70	#6331 25.45	#7631 22.85	#7631 23.70

ACCO Entrance Range & Lighting Switch					
No. 66336RLA.....	Range and Lighting Sw. 1-60A. 250V. and 4-30A. 125V.	.....			
No. 66336RLB.....	Range and Lighting Sw. 1-60A. 250V. and 6-30A. 125V.	.....			
No. 30.....	Meter Back Plate and Switch Support for above	.....			26.25
No. 30.....	Meter Back Plate and Switch Support for above	.....			2.00

UNIVERSAL Meter Service Switches—No End Walls					
Number	Service Switch	Branch Circuits	Fuses	Fuse in	2 Pole 3 Pole
971123.....	1	1	2	2	\$3.75
9723-972123.....	1	1	4	4	5.00
973333.....	1 or 2	1 or 2	1 or 2	2	4.05
9733-9733.....	1 or 2	1 or 2	2 or 4	4	5.65
975333-975333.....	1 or 2	1 or 2	2 or 4	4	5.25

These prices apply only to the United States

## Switches

Noark Doall Without End Plate					
Amps.	Fused For	Numbers	Price	Numbers	Price
30A	Plug	913123-911123	\$ 2.95	912333-914333	\$ 3.75
30A	Enclosed	921223	3.30	922333-924333	4.05
60A	.....	921226	8.40	925336	8.90
100A	.....	921221	14.95	925331	15.85

"TYPE C" "NUBLADE"—Quick Break					
230 Volts Fusible					
Amp.	Number	2 Pole	3 Pole	4 Pole	Price
30	8223	\$ 3.15	8233 \$ 5.15	8243	\$ 8.65
60	8226	8.15	8236 10.00	8246	12.70
100	8221	12.70	8231 15.40	8241	26.30
200	8222	19.95	8232 26.30	8242	43.55
400	8224	49.00	8234 67.15	8244	86.65

230 Volts Solid Neutral					
Amp.	Number	3 Pole	Price	Number	Price
30	All Solid	8933	\$ 5.20	8943	\$10.00
60	Switching Neutral	8936	10.00	8946	14.50
100	.....	8931	15.40	8941	28.15
200	.....	8932	26.30	8942	45.40
400	.....	8934	67.15	8944	90.75

Non-Fusible					
Amp.	Number	2 Pole	3 Pole	4 Pole	Price
30	8723	\$ 3.15	8733 \$ 5.15	8743	\$ 8.15
60	8726	8.15	8736 8.65	8746	13.60
100	8721	10.80	8731 12.25	8741	20.90
200	8722	19.05	8732 22.70	8742	38.10
400	8724	36.30	8734 47.20	8744	63.55

Quick Break "TYPE C" "NUBLADE" 575 V.-AC					
575 Volts AC Fusible 575 Volts Non-Fusible					
Amp.	Number	3 Pole	Price	Number	Price
30	8433	\$10.90	8443 \$18.15	8633 \$ 8.15	8643 \$10.90
60	8436	13.60	8446 19.95	8636 10.90	8646 18.15
100	8431	21.80	8441 36.30	8631* 17.25	8641 27.25
200	8432	38.10	8442 51.75	8632 29.00	8642 42.65

ACCESSORIES FOR NOARK SWITCHES					
Single Piece End Wall for 30 Amp. Switches	.....	\$ .30	For 60 & 100 Amp.	.....	\$ .80
Shutter for	.....	\$ .30	.....	.....	\$ .30
Universal End Wall No. 909103	.....	.....	.....	.....	.....
Blanking Side No. 908103-908203	.....	.....	.....	.....	.....
Trough—3 & 5" 40c—6" 45c—7" 50c—8" 55c—9" 60c	.....	.....	.....	.....	.....
Cabinet Fuse Block No. 902413	.....	.....	.....	.....	.....

POLYPHASE					
Meter Service and Entrance Switches					
125-250 Volts Without End Walls					
Main Entrance "ACCO" QUAD "ACCO" QUAD "SECO" QUAD					
Amp.	Number	Price	Number	Price	Number
30	851233	\$ 4.65	77033 \$10.40	67033 \$11.05	67533 \$10.95
60	851236	11.60	77036 18.45	67036 20.20	67536 16.70
100	851231	19.05	77031 28.05	67031 30.00	67531 26.30

SOLID NEUTRAL SWITCHES					
Noark Fusible—Quick Break					
Amps.	Volts	3 Pole-2 Blades	4 Pole-3 Blades	5 Pole-4 Blades	Price
30	125-250	#8133 \$ 4.10	#8143 \$ 8.15	#8153	\$12.70
60	"	#8136 9.10	#8146 11.35	#8156	19.95
100	"	#8131 14.50	#8141 20.45	#8151	35.85
200	"	#8132 22.70	#8142 31.75	#8152	50.82
400	"	#8134 63.55	#8144 81.70	#8154	111.00

BULLDOG SWITCHES					
Toggle Type—Quick Make & Break					
Cat. Number	Volts	Poles	Blades	Fuses	Neutral
92211 & T-82211	125	2	1	1 Plug	
90211	125	2	2	"	
90311	115	3	3	"	
92311	125-250	3	2	"	Solid
91311	125-250	3	2	"	"
92221	250	2	1	1 Cart.	
90221	250	2	2	"	
90321	230	3	3	"	
91321	250	3	2	"	Solid
90351	575 A. C.	3	3	"	
81321-S1321U	230-460	3	3	"	

"TYPE C" NON-INTERLOCKING						
Quick Make & Break						
Single Throw	Fusible			Type "C"		
	250 Volts DC—230 Volts AC			575 Volts AC		
Amps	2 Pole	3 Pole		3 Pole	4 Pole	
30 A. Porc. Base.	#50221S \$ 3.20	#50321S \$ 5.15		Equipped with Arc Chokers		
30 A. End Plates.	#50221P 3.20	#50321P 5.15				
30 A. Slate Base.	#50221 5.40	.....	#50351 \$10.90	#50451 \$18.15		
60 A. " "	#50222 8.20	#50322 10.00	#50352 13.60	#50452 20.90		
100 A. " "	#50223 12.70	#50323 15.40	#50353 21.80	#50453 36.30		
200 A. " "	#50224 20.00	#50324 26.30	#50354 38.10	#50454 51.75		
400 A. " "	#50225 49.00	#50325 67.15	.....			



## Switches

### TYPE "C" NON-INTERLOCKING—Continued

Single Throw		Not Fusible		Type "C"	
Solid Neutral Blades Omitted		3 Pole 2 Blades 2 Fuse Holders 230 V.-AC & DC	4 Pole 3 Blades 3 Fuse Holders 115-230 V.-AC	5 Pole 4 Blades 4 Fuse Holders 115-230 V.-AC	
x 30 Amp. Type C	.....	52311P	\$ 2.50		
30	".....	52321P	3.20	52421	\$ 6.40
60	".....	52322	9.10	52422	11.40
100	".....	52323	14.60	52423	20.50
200	".....	52324	22.75	52424	31.85
400	".....	52325	63.75	52425	82.00
x This Switch for 125 Volts Ed. Plug Fusible.					
		2 Pole	3 Pole	4 Pole	
30 A. 2 Pole—250 Volt.....	.....	53221S	3.20	53321S	\$ 4.00
30-60 A. DC and 230 Volts.....	.....	53222	8.15	53322	8.65
100 A. AC 3 & 4 Pole.....	.....	53223	10.90	53323	12.25
200 A. 230 Volts.....	.....	53224	19.00	53324	22.70
400 A. AC Only.....	.....	53225	36.30	53325	47.20
					53425
					63.50

### 30 AMP. SERVICE ENTRANCE SWITCHES

Bulldog—Not Meter Test				
Cat. Number	Volts	Poles	Description	Price
100211S & P.....	125	2	Feasible —For Plug Fuses.....	\$1.65
100421S.....	125	2	—Quick Make & Break.....	2.75
100221S & P.....	250	2	—For Cartridge Fuses.....	2.50
1003221S & P.....	250	2	Not —For Plug Fuses.....	2.75
100311SP & 101311P	115	3	A.C. <sup>c</sup> Plug Fuses.....	3.00
104311S.....	115	3	A.C. <sup>c</sup> —Quick Make & Break.....	4.35

### MAIN SERVICE Meter Test Switches

### Combining a Meter Test Switch with Range and Lighting Circuits

Number	Amp.	Volt	Poles	Neutral	Branches	Price
721204	60	125-250	3	Solid	1-60A & 4-30A	\$24.10
721206	60	125-250	3	"	1-60A & 6-30A	28.50
431101	Meter Mounting Plate and Cabinet Support.....					1.10
412112	" End Plate.....					.30

### "TYPE A"

### Bulldog Single Throw Quick Make and Break

		2 Pole		3 Pole		4 Pole	
		No.	Price	No.	Price	No.	Price
<b>250 V. DC &amp; 230 V. AC Fusible</b>							
30 Amp.....	10221		\$10.90	10321	\$13.60	10421	\$16.35
60 ".....	10222		13.60	10322	18.15	10422	21.80
100 ".....	10223		20.90	10323	27.25	10423	36.30
200 ".....	10224		26.30	10324	40.85	10424	54.45
400 ".....	10225		63.10	10325	82.50	10425	107.25
<b>575 Volts—AC Fusible</b>							
30 Amp.....	10261		\$16.35	10351	\$19.25	10451	\$24.50
60 ".....	10262		17.25	10352	20.90	10452	26.30
100 ".....	10263		27.25	10353	31.75	10453	41.75
200 ".....	10264		42.65	10354	52.65	10454	63.50
400 ".....	10265		90.75	10355	99.00	10455	128.00
<b>Not Fusible..... 230 V.—AC, D.C. 575 A.—ArcChk 575 A.—ArcChk.</b>							
30 Amp. 230 Volts only.....				13221	\$11.35	13421	\$16.35
30-60 Amp.....	13222		\$11.80	13352	15.90	13452	21.80
100 ".....	13223		19.95	13353	24.05	13453	31.75
200 ".....	13224		25.40	13354	34.50	13454	46.30
400 ".....	13225		54.45	13355	82.50	13455	107.25
<b>Not Fusible..... 600 V.—AC, D.C.</b>							
30-40 Amp.....	13262		\$12.70				
100 ".....	13263		20.40				
200 ".....	13264		27.65				
400 ".....	13265		65.25				

### COMPENSATOR SWITCHES

### Bulldog Quick Make & Break Fusible

Amps.		230 Volt AC			
		3 Pole		4 Pole	
30 A.	30321	\$16.35	30421	\$	21.80
60 A.	30322	17.45	30422		26.30
100 A.	30323	25.15	30423		47.20
200 A.	30324	47.90	30424		65.35
400 A.	30325	76.25	30425		118.80

Amps.		575 Volts AC Arc Chokers	
		3 Pole	
30 A.	30351	\$18.35	
60 A.	30352	19.25	
100 A.	30353	29.95	
200 A.	30354	50.55	
400 A.	30355	81.70	

## MOTOR STARTERS

## Bulldog

					3 Pole	4 Pole
30 Amp.—Type A—230 Volts AC.....					40321 \$16.35	40421 \$22.70
60 " " " 230 " "					40322 22.70	40422 31.75
30 " " " 460 " "					40341 22.70	40441 31.75
60 " " " 460 " "					40342 32.70	

**NOTE:** For Bulldog Switches not listed deduct 10% from Bulldog Lists.

**SMALL ENTRANCE SWITCHES**  
Columbia, 30 Amp.

Description				2 Pole	3 Pole
Single Fused	Single Blade	125 Volt-Plug Fused		320-321	\$1.50
Double	Double	125		1980	1.25
"	"	"	"	3980	1.90
"	"	250	Cartridge Fused	322	2.50
"	"	250		422	2.50
Description					3 Pole
Single Fused-Single Blade	125 Volt-Plug Fused			1931-2	\$2.15
Double	Double	125		3931-2	2.40
"	"	"	"	393	4.00
"	"	250	Cartridge Fused	423	4.40
"	"	250		423	4.40

## ENTRANCE SWITCHES

Range and Lighting		Columbia	3 Pole 125-250 Volt
Cat. No.	Amp.	Branches	Price
3551	60	1-30A-1-60A. 250V. N. E. C. Fused	& 2-30A. Plug Fused \$34.60
3552	60	1-30A-1-60A. 250 V. " " " " " " " "	4-30A. " " 35.40
3553	60	1-30A-1-60A. 250 V. " " " " " " " "	6-30A. " " 38.60

### BRANCH CIRCUIT ENTRANCE SWITCHES

**Columbia**

30 Amp. Series	2		4		6		8	
	Circuit 2 Pole	2 Pole	Circuit 3 Pole	3 Pole	Circuit 3 Pole	3 Pole	Circuit 3 Pole	3 Pole
2401 to 2406	\$3.90	\$4.90	\$5.20	\$5.85	\$6.20	\$7.15		
3401 to 3406	4.90	6.20	6.50	7.15	8.45	9.50		
3501 to 3506	4.75	5.85	6.20	6.90	7.50	8.45		

Series 30—Quick Break—250 Volts for Meter Trims  
For Cartridge Fuses

	30 Amp.	60 Amp.	100 Amp.	200 Amp.
2 Pole.....	3022 \$5.55	3025 \$ 8.75	3028 \$12.50	3031 \$18.20
3 Pole.....	3023 7.50	3026 10.00	3029 16.15	3032 24.00

## INDUSTRIAL SWITCHES

## Columbia

Series 70 Type C Fusible					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
250 Volts	30A	C7001	\$ 9.30	C7002	\$11.30
Fusible	60A	C7004	12.00	C7005	15.50
Quick Make	100A	C7007	18.85	C7008	23.65
& Break	200A	C7010	27.95	C7011	34.65

Series 70 Type A Fusible					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
250 Volts	30A	A7001	10.30	A7002	\$12.85
Fusible	60A	A7004	13.10	A7005	17.30
Quick Make	100A	A7007	21.45	A7008	27.50
& Break	200A	A7010	30.50	A7011	28.35

	Series 71-500 Volts Fusible		3 Pole	
	Amps	Number	Price	Number
500 Volts	80A	7101	\$13.80	7102
Quick Make	80A	7104	14.00	7105
& Break	100A	7107	23.50	7108
	200A	7110	37.70	7111

Series 73-500 Volts Unused					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
500 Volts	30A	7301	\$10.80	7303	\$12.70
Quick Make	60A	7304	10.80	7305	13.25
& Break	100A	7307	17.15	7308	19.20
	200A	7310	23.65	7311	28.45

Series 72-600 Volts Fusible					
2 Pole			3 Pole		
Amps	Number	Price	Number	Price	
600 Volts	30A	7201 \$14.60	7202	\$16.05	
Quick Make	60A	7204 14.60	7205	16.05	
& Break	100A	7207 24.10	7208	27.15	
	200A	7210 38.60	7211	42.50	

Series 74-600 Volts Unfused			
Amps	2 Pole	3 Pole	
	Number	Price	Number
600 Volts	30A 7401	\$11.70	7402
Quick Make	60A 7404	12.45	7405
& Break	100A 7407	18.90	7408
	200A 7410	25.15	7411

Series 20-250 Volts Fusible					
Amps		2 Pole		3 Pole	
	Number	Price	Number	Price	
Quick Break Only 250 Volts	30A	2032	\$ 5.10	2023	\$ 6.85
	60A	2025	6.85	2026	7.90
	100A	2028	10.85	2029	13.35
	200A	2031	19.10	2032	23.85

Series 23-250-500 Volts Unfused					
	Amps	2 Pole		3 Pole	
		Number	Price	Number	Price
Quick Break	30A	2322	\$ 4.75	2323	\$ 6.25
Only	60A	2325	8.95	2326	9.50
250 Volts	100A	2328	11.35	2329	12.50
	200A	2331	19.10	2332	23.40

## MOTOR STARTING SWITCHES

**Columbia, 250 Volts**

		2 Pole		3 Pole
30 Amp. Motor Start Switch.....	6001	\$12.50	6002	\$16.70
60 " " " " " "	6004	13.10	6005	17.25
				4 Pole
30 Amp. Motor Start Switch.....			6008	\$19.65
60 " " " " " "			6006	25.80

## Wadsworth Switches

### MAIN ENTRANCE SWITCHES

Number	Amps.	Volts	Poles	Blades	Fuses	Neutral	Accessible Fuses	Price
1450-1250	30	125	2	1	1 Plug	Solid		\$ 3.55
1402-1202	30	125	2	2	2 "	None		3.90
1403-1203	30	125-250	3	2	2 "	Solid		4.12
2250	30	125	2	1	1 NEC			4.25
2250	30	250	2	2	2 "	None		4.80
2203	30	125-250	3	2	2 "	Solid		4.85
1800	60	125	2	1	1 "			13.90
1802	60	125 or 250	2	2	2 "	None		14.75
1803	60	125-250	3	2	2 "	Solid		15.65
1900	100	125	2	1	1 "			22.60
1902	100	125 or 250	2	2	2 "	None		23.45
1903	100	125-250	3	2	2 "	Solid		24.35
4603	200	125-250	3	2	2 "			44.50
4803	400	125-250	3	2	2 "			93.00

*These prices apply only to the United States*



## Switches

## Diamond E Switches

## SMALL ENTRANCE SWITCHES, 30 AMPS.

Volts	For Fuses	Description	2 Pole	3 Pole
125	Plug	All Fused	P-2 \$1.65	P-3 \$2.75
125	Plug	Ground Neutral	P-2S 1.65	P-3S 2.25
250	Cartridge	All Fused	C-2 2.25	C-3 4.00
250	Cartridge	Ground Neutral	C-2S .....	C-3S 2.90

## ALL-N-ONE SWITCHES

Live Front	Double Fuse	Dead Front	Single Fuse
No. Circuits	Price	No. Circuits	Price
A-2	3 \$3.45	AD-3	3 \$5.40
A-3	3 3.50	AD-4	4 5.55
A-5	5 4.15	AD-5	5 6.75
A-7	7 6.60	AD-6	6 7.95
A-9	9 6.95	AD-8	8 9.30
		AD-10	10 11.25

## RANGE &amp; WATER HEATER SWITCHES

## 60 Amp.—125 Volts

No. 501	No. 502	No. 503	No. 504	No. 505	No. 506	No. 507
\$9.90	\$15.25	\$23.00	\$26.75	\$20.25	\$8.90	\$13.90

## MOTOR STARTING SWITCHES

MS-1	30 Amp. 3 Pole 220 Volts Quick Make & Break Toggle.....	\$6.00
C-3P	30 Amp. 3 Pole 250 Volts Not Toggle.....	7.10

## SAFE LINE SERVICE SWITCHES

No. 904	Single Pole 4 Circuits with Transformer.....	\$7.85
	without Transformer.....	6.60

## INDUSTRIAL TYPE

## Quick Break—Single Throw—Fused Bottom

Amp.	No.	Price	No.	Price	No.	Price
30	3022	\$ 5.40	3032	\$ 6.75	3042	\$ 7.90
60	6022	8.10	6032	9.00	6042	11.65
100	10022	11.65	10032	13.30	10042	24.10
200	20022	18.25	20032	24.10	20042	39.75
400	40022	44.85	40032	61.50	40042	87.20
600	60022	78.00	60032	91.30	60042	131.10

Amp.	No.	Price	No.	Price	No.	Price
30	3025	\$ 9.00	3035	\$ 8.55	3045	\$ 12.45
60	6025	9.90	6035	10.80	6045	13.30
100	10025	13.30	10035	15.80	10045	26.60
200	20025	26.60	20035	30.00	20045	43.20
400	40025	68.00	40035	74.70	40045	116.20
600	60025	96.30	60035	103.00	60045	167.70

Amps.	30 Amp.	60 Amp.	100 Amp.	200 Amp.
Number.....	3026	6026	10026	20026
Price.....	\$15.30	\$15.80	\$25.00	\$38.60

## Not Fused—Quick Break

Amps.	Pole	Volts	Number	Price	Number	Price
30	2	250 DC	3022N	\$ 5.00	3022DN	\$ 10.80
30	3	250 DC	3032N	6.30	3032DN	12.45
30	2	500 AC	3025N	8.65	3025DN	13.15
30	3	500 AC	3035N	8.10	3035DN	16.60
60	2	250-500	6025N	8.10	6025DN	13.15
60	3	250-500	6035N	8.55	6035DN	16.60
100	2	250-500	10025N	11.50	10025DN	24.90
100	3	250-500	10035N	11.25	10035DN	30.70
200	2	250-500	20025N	17.00	20025DN	34.85
200	3	250-500	20035N	20.75	20035DN	50.60
400	2	250-500	40025N	49.80	40025DN	99.60
400	3	250-500	40035N	58.00	40035DN	132.80
600	2	250-500	60025N	83.00	60025DN	141.00
600	3	250-500	60035N	99.60	60035DN	163.50

## S-SUNDRIES

## WOOD SCREWS—Flat Head

Size	Price Per Doz.	Size	Price Per Doz.	Size	Price Per Doz.
1/4"x6 & Smaller.....	\$ .05	1 1/4"x12.....	\$ .07	2 1/4"x12.....	\$ .08
1/2"x8.....	.05	1 1/2"x8.....	.07	2 1/2"x8.....	.09
3/8"x6.....	.05	1 3/8"x8.....	.07	2 3/8"x8.....	.09
1/2"x8.....	.05	1 1/2"x10.....	.07	2 1/2"x10.....	.09
1"x8.....	.05	1 1/2"x12.....	.07	2 1/2"x12.....	.10
1"x8.....	.05	2"x8.....	.08	3"x8.....	.10
1"x10.....	.05	2"x10.....	.08	3"x10.....	.10
1 1/4"x8.....	.06	2 1/4"x12.....	.09	3 1/4"x12.....	.13
1 1/4"x8.....	.06	2 1/4"x8.....	.07	3 1/4"x14.....	.15
1 1/4"x10.....	.07	2 1/4"x8.....	.07		

NOTE—For Round Head Wood Screws Add 30% to above prices.

## MACHINE SCREWS—Round or Flat Head

Size	Price per Dozen	Size	Price per Dozen
1/4"x1/4.....	\$ .05	10/24 x 1/4.....	\$ .06
1/4"x1/2.....	.05	10/24 x 1.....	.06
1/4"x3/4.....	.05	10/24 x 1 1/4.....	.06
1/4"x1.....	.05	10/24 x 1 1/2.....	.07
1/4"x1 1/4.....	.05	10/24 x 2.....	.08
1/4"x1 1/2.....	.05	10/24 x 2 1/4.....	.09
1/4"x1 3/4.....	.05	10/24 x 2 1/2.....	.10
1/4"x2.....	.05	10/24 x 2 3/4.....	.12
1/4"x2 1/4.....	.05	10/24 x 3.....	.12

NOTE—For Machine Screws with Phillips Head Add 25% to above prices.

LAG SCREWS  
Square Heads or Coach Screws

Length	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"	5"	6"
1/2" Black.....	\$ .03	.03	.04	.04	.04	.04	.04	.05
3/4" Black.....	.03	.04	.04	.04	.05	.05	.05	.06
1" Black.....	.04	.04	.05	.05	.06	.06	.07	.07
1 1/4" Black.....	.05	.05	.06	.07	.07	.07	.08	.09
1 1/2" Galv.....	.03	.03	.04	.04	.....	.....	.....	.....
1 3/4" Galv.....	.04	.04	.04	.04	.05	.05	.06	.06
2" Galv.....	.06	.06	.07	.07	.08	.08	.09	.10

## STRAPS—CLIPS OR CLAMPS

## For Pipe

Without Screws	1/4"	1/2"	3/4"	1"	1 1/4"
Galvanized Straps, 2 Hole.....	\$ .01	.01	.01	.01	.02
(Per Pound \$.20) No. Straps per Lb.....	45	40	25	20	13
Light Steel Straps, 1 Hole.....	.04	.05	.06	.08	.....
Mail Iron Clamps, 1 Hole.....	.06	.07	.08	.11	.18
P & S Conduit Clamps with Bolts.....	.....	.10	.14	.18	.20

Without Screws	1 1/4"	2"	2 1/2"	3"
Galvanized Straps, 2 Hole.....	\$ .02	.04	.05	.0
(Per Pound \$.20) No. Straps per Lb.....	12	7	5	4
Light Steel Straps, 1 Hole.....	.....	.....	.....	.....
Mail Iron Clamps, 1 Hole.....	.25	.45	.65	.85
P & S Conduit Clamps with Bolts—Series 1400.....	.25	.....	.....	.....

## SOLDER

40-60	50-50	Resin or Acid	Ribbon	Allen
Bar or Wire	Bar or Wire	Core	30-70	Alumi. Flux
Per Pound.....	\$ .65	\$ .70	\$ .85	\$ .75
Per Ounce.....	.05	.05	.08	.07

## SOLDER PASTE

Make	2 oz. Cans	2 oz. Tubes	4 oz. Cans	Half Pound Cans	One Pound Cans
Allen.....	\$ .25	\$ .40	\$ .50	\$ .70	\$ 1.25
Burnley.....	.20	.....	.30	.40	.65
Crescent.....	.25	.....	.40	.65	1.00
G. E.....	.25	.....	.....	.90	1.50
Highland.....	.40	.....	.....	.90	1.65
Nokorode.....	.25	.....	.....	.90	1.50
Star.....	.25	.....	.40	.65	1.00

## SOLDERING SALTS

	1/2 Lb.	1 Lb.
Burnley..... In cans each.....	\$ .40	\$ .75
Yager.....	.75	1.00
McGill Crescent..... In Bottles each.....	.85	1.00
Nokorode..... In cans each.....	.....	1.00
Allen..... In Bottles each.....	.75	1.00

## SOLDER STICKS

	Price
Burnley.....	\$ .25
Samson.....	.20
Allen.....	.40
Crescent.....	.25
GE.....	.25
Star.....	.25

## FIXTURE STUDS

	1/4"	1/2"
Four Prong Fixture Studs Less Bolts.....	\$ .10	\$ .15
Bolts Extra.....	.01	.01
No Bolt Fixture Studs.....	.10	.15

## STAPLES

Staples Insulated Nails Per Dozen.....	\$ .05
Leather Nail Heads Per Dozen.....	.05
Milnite Insulated Nails Per Dozen.....	.05

## TAPE

	8-Ounce Roll	4-Ounce Roll	2-Ounce Roll	1-Ounce Roll	Per Foot
Adhere.....	\$0.25	\$0.15	\$0.10	\$0.05	\$0.01
Amazon.....	.25	.20	.10	.05	.01
Buldog.....	.40	.20	.10	.05	.01
Clifton.....	.35	.20	.10	.05	.01
Dutch Brand.....	.35	.20	.10	.05	.01
G. E. 361.....	.30	.20	.10	.05	.01
Grimshaw.....	1.00	.50	.25	.15	.03
Highest Firestone.....	.30	.15	.10	.05	.01
Holdfast.....	.25	.15	.10	.05	.01
Holdite U. S.....	.30	.15	.10	.05	.01
Johns Manville Armature.....	.90	.45	.25	.15	.02
" " Iomanco.....	.55	.30	.15	.10	.02
" " White.....	.70	.35	.20	.10	.02
" " #3 Now #5.....	.25	.15	.10	.05	.01
" " #5 #40.....	.30	.15	.10	.05	.01
Manson.....	.60	.30	.15	.10	.02
O. K.....	.30	.15	.10	.05	.01
P & B.....	.35	.20	.10	.05	.01
Security.....	.25	.15	.10	.05	.01
Slipknot.....	.30	.15	.10	.05	.01
U. S.....	.65	.35	.20	.10	.04
Two Plex.....	.60	.30	.15	.10	.02
Vim Gray.....	.60	.30	.15	.10	.02

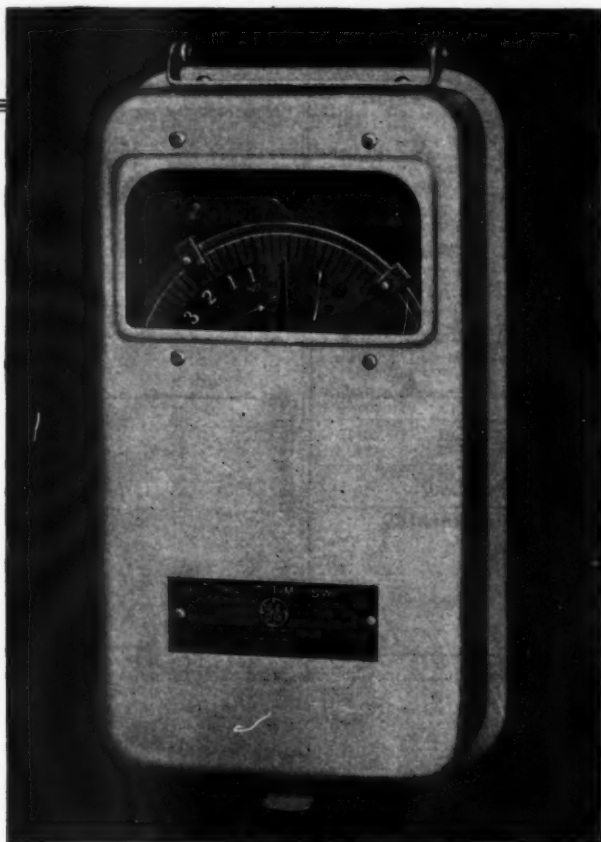
	\$0.30	\$0.15	\$0.10	\$0.05	\$0.03
Akron Firestone.....	.50	.25	.15	.10	.04
Amazon.....	.30	.15	.10	.05	.03
Dutch Brand.....	.30	.15	.10	.05	.03
Imperial.....	.30	.15	.10	.05	.03
Okonite.....	.75	.40	.20	.10	.04
Paragon.....	.85	.45	.25	.15	.04
P. R. Splicing.....	.30	.15	.10	.05	.03
Relio U. S.....	.25	.15	.10	.05	.03
Security.....	.30	.15	.10	.05	.03
Twoplex.....	.65	.35	.20	.10	.04
U. S.....	.25	.15	.10	.05	.03
USCO.....	.50	.25	.15	.10	.04
Victor.....	.25	.15	.10	.05	.03

These prices apply only to the United States









Type T-13

## *New and Better* A Time Switch for General Use

**N**EW in design . . . and better! Because in the Telechron motor it has a most accurate and reliable timing element . . . because it has a mercury switch, long-lived and positive . . . and because it has many other desirable features.

Any number of operations a day . . . skip a day or more if desired. Five different switch combinations . . . for a-c. circuits up to 30 amperes

. . . for indoor and outdoor service . . . with either plain dial (for fixed-time settings) or an astronomic dial (for sun schedules). These features adapt it to every application.

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on a nation-wide N.B.C. network*

621-16

# GENERAL ELECTRIC

SALES AND ENGINEERING SERVICE IN PRINCIPAL CITIES



# A. E. I.

## NEWS and SERVICE INFORMATION

Material for this department is supplied by the headquarters staff of the Association of Electragists, International, 420 Lexington Avenue, New York, N. Y.

President, L. E. MAYER  
14 North Franklin Street, Chicago, Illinois

Vice President, EARL N. PEAK  
1603 West Main Street, Marshalltown, Iowa

### DIVISIONAL EXECUTIVE COMMITTEEMEN

**Eastern**  
LOUIS KALISCHER  
288 Livingston St.  
Brooklyn, N. Y.

**Great Lakes**  
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2470 Grand River  
Ave., Detroit, Mich.

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San Francisco, Cal.

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344 Main Street  
Winnipeg, Man.

**General Manager**  
LAURENCE W. DAVIS  
420 Lexington Ave.  
New York City

### House Wiring Adequacy Standards

A three-day meeting of the Subcommittee on House Wiring Adequacy Standards was held at the headquarters' office of the Association, on June 29, 30, and July 1, at which the following members were present:

J. H. Schumacher, Winnipeg, chairman; George LaVigne, Miami; D. B. Clayton, Birmingham; George E. Davis, Newark; Edwin M. Seaman, Mineola; S. J. O'Brien, New York City; Arthur L. Abbott, New York City, technical secretary; L. W. Davis, general manager.

It was decided that the material prepared by this sub-committee should, in general, take the form of recommended standard practice applying to all single, 2, 3 and 4 family dwellings; also that wherever necessary, these standard practice recommendations should be supplemented by suggestions for additional outlets, switch control, and service and circuit capacity.

The committee took up a detailed discussion of the various items involved in the layout of house wiring installations as follows:

1. Outlets and switch control.
2. Branch circuits for the heavier portable appliances.
3. Branch circuits for lighting and small portable appliances.
4. Branch circuits for fixed appliances not including extensive ap-

plications of electric space heating.

#### 5. Services.

- a. Service without provision for high capacity fixed appliances.

- b. Service including provision for range, water heater and other high capacity fixed appliances, but not including extensive applications of electric space heating.

6. Layouts for electric space heating, including service and branch circuits.

7. Low-tension work, including bell work, public telephones and intercommunicating telephone systems.

### Election of Officers

The biennial election of president and vice-president of the Association of Electragists will take place at the Hot Springs convention, on October 7. The election will be by official ballot of all members present and by accredited delegates of A.E.I. Chapters who are entitled to cast the vote on the official ballot of each member of their local Chapter.

The Constitution provides that nominations for president and vice-

NAME	CITY	YEARS SERVED
Ernest Freeman,	Chicago, Ill.	1909-1914
Gerry M. Sanborn,	Indianapolis, Ind.	1909-1922
James R. Strong,	New York, N. Y.	1909-1916:1921-1929
*Joseph A. Fowler,	Memphis, Tenn.	1913-1931
Paul H. Jaehnig,	Newark, N. J.	1913-1922
J. C. Rendler,	Los Angeles, Cal.	1913-1918
W. Creighton Peet,	New York, N. Y.	1916-1928
Robley S. Stearnes,	New Orleans, La.	1916-1922
W. K. Tuohey,	Springfield, Mass.	1916-1919
Sam Jaggat,	Portland, Ore.	1918-1919
J. F. NePage,	Seattle, Wash.	1918-1921
J. Norman Pierce,	Chicago, Ill.	1918-1919
*L. K. Comstock,	New York, N. Y.	1919-1921:1923-1925:1928-1931
Alfred J. Hixon,	Boston, Mass.	1919-1922
J. R. Tomlinson,	Portland, Ore.	1919-1921
E. C. Gramm,	Washington, D. C.	1920-1922
C. H. E. Williams,	Vancouver, B. C.	1920-1922
J. F. Buchanan,	Philadelphia, Pa.	1921-1922:1924-1927
T. M. Templeton,	Detroit, Mich.	1921-1922
*R. A. L. Gray,	Toronto, Ont.	1922-1931
Howard P. Foley,	Washington, D. C.	1922-
L. G. Ross,	Superior, Wis.	1922-1925
*Clyde L. Chamblin,	San Francisco, Cal.	1923-1931
E. C. Headrick,	Denver, Colo.	1923-1929
J. G. Crosby,	Philadelphia, Pa.	1923-1924
*J. H. Schumacher,	Winnipeg, Man.	1925-1931
*Leo E. Mayer,	Chicago, Ill.	1926-1931
A. C. Brueckman,	Baltimore, Md.	1926-1929
S. J. Stewart,	New Orleans, La.	1927-1929
Charles E. James,	Fort Pierce, Fla.	1928-1929
*Earl N. Peak,	Marshalltown, Ia.	1929-1931
G. W. Forsberg,	Salt Lake City, Utah	1929-
Allan Coggeshall,	New York, N. Y.	1929-1930
*W. W. Ingalls,	Miami, Fla.	1929-1931
John H. Busby,	Detroit, Mich.	1929-1930
*F. T. Langford,	Minneapolis, Minn.	1929-1931
*Louis Kalischer,	Brooklyn, N. Y.	1930-1931
*E. D. Brown,	Detroit, Mich.	1930-1931
*R. R. Reid,	Salt Lake City, Utah	1930-1931

Note: Names marked with an asterisk (\*) are present members of Executive Committee.

## Yes, They Look Alike, But—



... which is the ripe melon? Cutting them apart will not tell, but taste will!

**J**UST looking at two rolls of friction tape won't tell much either. It takes actual service to prove which has the longest life, greatest adhesiveness, more dielectric resistance and which one soils the fingers and doesn't ravel. Consider these qualities when you examine a roll of DUTCH BRAND Friction Tape. We will send you a roll free if you mail us this advertisement pinned to your letterhead.

DUTCH BRAND, you know, is an "Extra Service" tape (four times impregnated) that actually saves you money by doing a "long life" job, quicker. Big industries use it. Order from your jobber.

Make extra profits by selling as well as using DUTCH BRAND Friction Tape. Comes in 4 sizes, Nos. 1, 2, 4, and 8, packed in effective and attractive counter display cartons.

### VAN CLEEF BROS.

Established 1910

Manufacturers Friction and Rubber Tape and Soldering Paste  
Woodlawn Avenue, 77th to 78th Streets, Chicago, U. S. A.



**DUTCH BRAND**  
**Rubber Insulating Tape**  
Fuses instantly without heat. Molds into one solid piece, replacing the original insulation. Resists over 22,000 volts



**DUTCH BRAND**  
**Soldering Paste**  
A scientific mixture. Cleans as it works. Holds solder fast. Less paste required per job.

## DUTCH BRAND FRICTION TAPE

president may be filed by any member, such nominations to be in the hands of the secretary at least thirty days prior to the date of the annual convention. No one shall be nominated for president or vice-president unless he shall have served as a member of the executive committee. The consent of a nominee must be obtained before his nomination is put to vote.

Present members of the A. E. I. who have served on the executive committee since it was established in 1909, and who are therefore eligible for nomination as president or vice-president, will be found in the table listed on page 73 according to the years of service on the committee.

### Executive Committeemen Election

The terms of office of five executive committeemen expire this year at the annual convention in October, and election will take place at that time to fill their places. Those whose terms expire are as follows:

J. A. Fowler, Memphis—southern; F. T. Langford, Minneapolis—central; C. L. Chamblin, San Francisco—Pacific; R. A. L. Gray, Toronto—eastern Canadian; L. K. Comstock, New York City—at-large.

### New Chapters

A.E.I. charters have been granted to new Chapters organized in Virginia, West Virginia and Texas.

Chapter officers elected for the year are as follows:

Huntington Chapter: president: C. L. Walker, 532 Ninth St., Huntington, West Va.; secretary: G. L. Hawes, Box 1183, Huntington, West Va. Roanoke Chapter: president: W. J. Pearman, 510 S. Jefferson St., Roanoke, Va.; secretary: C. C. Coon, 28 W. Church Ave., Roanoke, Va. Lynchburg Chapter: president: John D. Hickok, 601—5th St., Lynchburg, Va.; secretary: Irby Hudson, 519 Main St., Lynchburg, Va. Charlottesville Chapter: president: T. C. Ritchie, 319 E. Main St., Charlottesville, Va.; secretary: R. R. Case, 114 4th St., N. E., Charlottesville, Va. Danville Chapter: president: D. L. Lewis, 224 Main St., Danville, Va.; secretary: R. G. Clarke, 545 Main St., Danville, Va. Temple Chapter: president: D. D. Walton, Box 81, Temple, Texas; secretary: Geo. D. Nichols, 1018 S. 11th, Temple, Texas.

### Active Members of Greater Miami Chapter

During the past quarter there have been a large number of changes in membership of the Greater Miami Chapter of Electragists. The present membership is as follows:

Abbott Electric Co., American Electric Co., Biscayne Electric Supply Co., Brown Electrical Const. Co., General Maintenance & Cont. Co., Julius Grethen; Harrington Electric Co., Inc., L. B. Harvey Electric Co., Jones Electric Service Co., Ingalls Electric Co., George LaVigne Electric Co., R. E. Lowry Electric Co., Lyons Electric Co., Magin Electric Co., Neil Brothers, Riverside Electric Co., E. A. Robinson, Rossey Electric Co., D. D. Shaffer Electric Co., W. E. Sunderland, Wagner Electric Co. and Standard Electric Co.

### New Members

The following applicants have been accepted into the A. E. I. since the publication of the list in the June issue:

#### CALIFORNIA

**Long Beach:**  
Electric Motor Repair Shop

**Los Angeles:**  
Industrial Electric Serv. Co.  
International Elec. & Machy. Co.  
Littlejohn Reuland Corp.  
Norton & Norton

#### FLORIDA

**Miami:**  
Magic Electric Co.

#### INDIANA

**Evansville:**  
Ray Sieffert Elec. Co.

#### NEW YORK

**Long Island City:**  
Supreme Elec. Equip. Co. Inc.

**New York City:**  
Harry A. Hanft

#### NEW JERSEY

**South Orange:**  
Morrison-Turbett, Inc.

#### OKLAHOMA

**Oklahoma City:**  
Black Elec. Co.  
Capitol Elec. Co.  
Fowler Elec. Co.  
Gaddis-Fentress Elec. Co.  
Grattan Electric  
Griffith Elec. Co.  
Hughes Elec. Co.  
B. D. Martin Elec.

#### PENNSYLVANIA

**Wilkes-Barre:**  
Wilfred E. Johns

#### TEXAS

**Dallas:**  
Libecap Elec. Co.  
Manett-Seastrunk & Buckner

#### WISCONSIN

**Sheboygan:**  
Acker Elec'l Co.

#### PORTO RICO

**San Juan:**  
Int'l G. E. Co. of Porto Rico

#### ARGENTINA, SOUTH AMERICA

**Buenos Aires:**  
E. Lix-Flett Co. S. A.

## Now—A Private Telephone System Designed Particularly for Resale by Electrical Contractors!

Strowger Auto-Com is the most simplified system yet devised for giving the best telephone service. A system that is easily understood, sold, and installed by any electrical contractor.

### The "Last Word" in Private Telephone Systems

Auto-Com is the most recent development of a company that has pioneered and led in the manufacture of automatic telephone equipment. The Strowger name is world-known.

Highest quality, modern—to the last detail! Telephones as used in public dial telephone systems . . . Monophones gracefully designed and in colors to match any interior.

### Inexpensive

Its low cost, considering the completeness and superiority of its services, makes Auto-Com far more acceptable than any other private telephone service. Also, acceptable to those who "have in mind" less modern, less desirable communication equipment.

### The Best Product to Meet a Big, New Demand —for SMALL Systems!

Smaller offices, factories, public buildings, and large residences (users of ten phones or less) are realizing the extra value of automatic private telephone service and there is a distinct trend to its use. Obvious superiority, reputation—everything is in your favor in selling this market the Auto-Com!

### Something NEW to Sell

Very important: Auto-Com will prove a big factor in pepping-up your line. It is live and you can be sure it will make satisfied customers for you.

### We Have an Excellent Auto-Com Proposition

An attractive dealer's selling-margin—even though the system is inexpensive and easily sold—is an important part of our proposition. Writing us a short letter that you are interested will bring details. Automatic Electric Inc., 1033 W. Van Buren St., Chicago, U. S. A.



# Strowger Auto-Com

Private Telephone System Made by the Makers of  
Strowger P-A-X



# Contracting News

*Information of Interest to Electrical Contractors consisting of items of news, short articles, practical ideas, etc. Our readers are invited to contribute to this department*

## Takes 76 Hours to Wire Average Small Home

An analysis of the distribution of workers and time among the eleven building trades required for the average small home built in 1930 shows that electricians averaged two men and 76 hours per house with an approximate total for the year of 190,000 hours. The tabulation of distribution shows the following:

Trade	Average Men	Average Hours per house	Approx. Total Hours
Carpenters	5	968	2,420,000
Masons	4	411	1,027,500
Painters	3	250	625,000
Plasterers	4	188	470,000
Steamfitters	2	124	310,000
Excavators	4	120	300,000
Electricians	2	76	190,000
Plumbers	2	88	220,000
Metal Workers	2	16	40,000
Tilers	2	20	50,000
Lathers	2	60	150,000

According to this tabulation, which was made by the home construction division of Sears, Roebuck & Co., Chicago, approximately 2,321 building trade labor hours were required for the average small home built in 1930, involving the employment of 32 workers in 11 building trades.

## Electrical Men Direct Memphis Building Congress

At a recent meeting of the building activities committee and the Memphis Building Congress, the following officers were elected: M. H. Furbringer, president; J. A. Angus, first vice-president; H. R. Cheers, second vice-president; C. J. Watson,

Jr., secretary, and Jos. A. Fowler, treasurer.

In addition to the officers, the board of directors elected are: H. N. Howe, E. O. Korsmo, E. F. Dowling, Milton Binswanger, E. O. Bailey, Ed Crump, Jr., and Jake Cohen.

W. W. Rice, manager of the local Electragist Chapter, has been appointed managing secretary.

The Congress will continue the work of the building activities committee to promote early development of building projects.

## Electragists' Convention Program

In the program being prepared for the 31st annual convention of the Association of Electragists, Int., to be held at Hotel Arlington, Hot Springs National Park, Ark., October 5 to 7, 1931, a great deal of time will be given over to discussion of adequacy standards in wiring, motor distribution policies, license protection, violations and attacks on the Code, etc., etc. One entire session will be assigned to a conference of delegates from the more than 100 Electragists chapters to discuss local chapter activities and interests.

In addition to the many fine features offered by the Hotel Arlington, special convention low rates have been arranged on the American Plan to all members and their families. J. A. Fowler, Memphis, chairman of the convention committee, has also arranged for some southern surprises—glimpses of the old south that will be unique to the delegates from every part of the country.

Among the interesting speakers listed are: J. F. Owens, president, N. E. L. A. who will talk on merchandising procedure; G. D. Munger, secretary-manager jointly of the Hudson Valley Electrical League and Electragists chapter, on the subject of the certified electrical contractor, and W. A. Cyr, associate edi-



Hotel Arlington, Hot Springs, Ark.

tor of "Electrical West," and acting-secretary of the Northern California Electragists.

The program follows:

#### SUNDAY

International executive committee meeting.

Reception of delegates.

Evening concert.

#### MONDAY

##### Morning:

Opening general session.

Sightseeing trip for the ladies.

Luncheon conference of motor section.

##### Afternoon:

Trip to Carpenter Dam, 80,000 h.p. development.

Trip to Lake Katherine with bridge party and tea at Couchwood for the ladies.

##### Evening:

Informal dance and bridge at Hotel Arlington.

Trip to Belvedere Club for dancing.

#### TUESDAY

##### Morning:

General business session.

Niloak pottery demonstration and trip to observation tower for the ladies.

##### Afternoon:

Golf tournament.

##### Evening:

Concert and informal dance at Hotel Arlington.

#### WEDNESDAY

##### Morning:

Delegates conference.

Chapter activities.

Reports, discussions and legislative action.

Miniature golf tournament for the ladies.

##### Afternoon:

Election of officers and executive committeemen.

Concert and informal bridge at Hotel Arlington.

##### Evening:

Annual banquet and entertainment.

#### Collier Relected President

J. R. Collier was reelected president of the Denver (Colo.) Chapter of Electragists, at its annual meeting held recently. Wm. A. J. Guscott was elected vice-president, E. E. Stettler, secretary, and L. A. Vosmer, treasurer. The board of directors comprises J. R. Collier, L. A. Vosmer, Wm. A. J. Guscott, B. Swank, O. F. Oehlmer and E. E. Stettler.

## FRINK POLARALITE SIGNS



Frink Polaralite Sign installation for the Northwestern Light & Power Company's office in the Public Service Building, Portland, Ore.

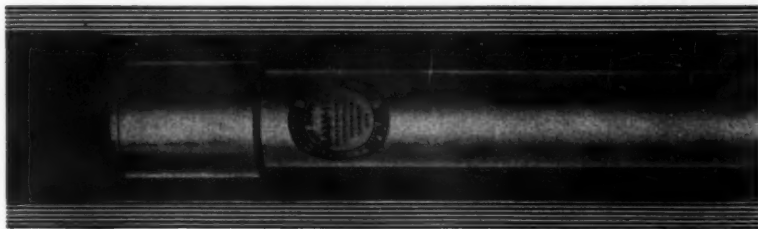
Polaralite Signs have been installed all through this building. Those shown in the picture are made with special clamps to slip over the marble ledge. Polaralite Signs are sheets of plate glass with any desired lettering or design etched thereon and lighted at one edge. This causes the design or lettering to stand out as though the letters were suspended in space. Complete details on request.

## THE FRINK CORPORATION

23-10 BRIDGE PLAZA SOUTH, LONG ISLAND CITY, N. Y.

# CONDUIT

*that resists corrosion*



## FRETZ-MOON HOT DIPPED GALVITE

● For locations where corrosive action is likely to be most severe, or where conduit of the highest type must be used—insist on Fretz-Moon Hot Dipped Galvite.

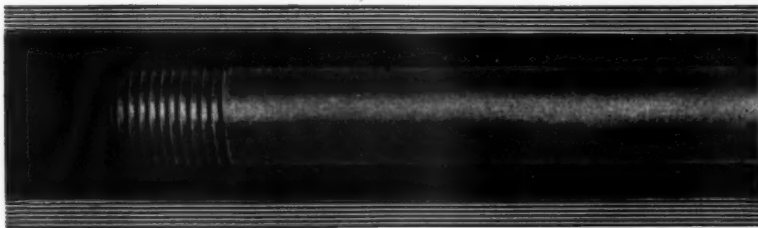
Hot Dipped Galvite—the corrosion-resisting conduit—is made from mild steel skelp by a patented “continuous” process, every step of which is under absolute control. It is heavily galvanized both inside and out by a special hot-dip process, and the inside galvanized surface is covered with a heavy baked-on coating of smooth, tough enamel.

Thus, maximum protection against corrosion is insured and a clean, fast raceway, free from rough edges or burrs, is provided.

Hot Dipped Galvite, like all Fretz-Moon Conduit, bends easily without scaling the galvanizing, cracking or chipping the enamel, or opening at the weld. Threads are deep, sharp and clean—couplings run fast and true.

Everyone who specifies or uses conduit should have a copy of the Fretz-Moon Conduit Booklet—it tells how Fretz-Moon Conduit is made and why it is better—write for it.

**FRETZ-MOON TUBE CO. INC.**  
**BUTLER, PENNA.**



# FRETZ-MOON

## RIGID CONDUIT

### Business Expansion Urged

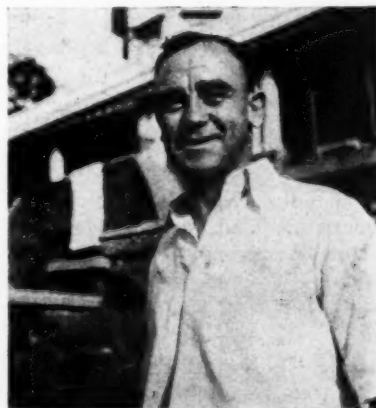
The electrical dealers and contractors attending the twenty-second annual convention of the Mississippi Electrical League at Jackson, Miss., June 23 and 24, were urged to continue business expansion and to work for closer co-operation between contractor-dealers, distributors and central stations in order to give better electric service to the public. L. V. Sutton, vice-president and general manager of the Mississippi Power & Light Co., Jackson, advised all electrical service men to “keep a stiff upper lip” and to continue with plans for constantly expanding electric use. Electrical development in Mississippi in the last five years and prospects for further development were also discussed.

The officers of the league are A. G. Riddick, president; Charles A. Koeneman, first vice-president; L. P. Sweatt, Jr., second vice-president; and T. B. Cabell, secretary-treasurer.

The finals in the annual golf tournament were played following the business session the first day. The convention closed with a banquet and dance at the Lee Hotel.

### Minnesota Contractors Told About 101 Wiring Defects

At the summer meeting of the Southern Minnesota Electrical Association at New Ulm, Minn., June 21 and 22, H. B. Forster, deputy state fire marshal in charge of elec-



**PRESIDENT OF ESSEX ELECTRICAL LEAGUE:** E. J. White (Eddie to almost everybody in New Jersey), we are told, has rare ability in getting co-operation from everyone in the League. With a 50 per cent increase in membership since the first of the year the league is becoming a powerful influence for the benefit of the industry in their section. We snapped this contractor at the annual league golf tournament.





**WIRING 600 HOME DEVELOPMENT:** J. Livingston, Rye, New York, is busily engaged in wiring 600 homes in a new development of the Westchester County Small Estates at Scarsdale. One of the homes is seen in the background. We noticed that every home has two outlets just outside the rear door for additional light or to operate electrical appliances.

trical inspection, discussed defective wiring listing one hundred and one defects on which the insurance underwriters base their penalty ratings. He sought the co-operation of members in eliminating these penalties, urging better work and re-wiring of obsolete and unsafe installations.

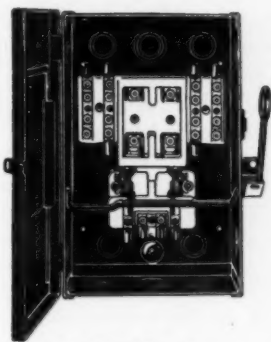
O. B. Preston stressed better electrical installations in small communities. E. L. Harris and John Lapham also spoke to the contractors.

William A. Ritt, secretary-treasurer, submitted reports showing that the membership has doubled in the past year, and now is the largest electrical trade group in the state.

#### Working for New State Electrical Laws

The Duluth and N. E. Minnesota Chapter of the Association of Electricians, consisting primarily of the membership of the Duluth Electrical Contractors Association, after reorganizing, has been actively engaged in supporting new state electrical laws. The association, by a series of letters to prominent clubs and individuals all over northern Minnesota, have been instrumental in having a great deal of pressure brought on the legislators in behalf of this projected legislation. This legislation has been passed through and put on general orders in both houses and is now be-

# WADSWORTH



Catalog No. 1843  
Accessible Fuse  
60 Ampere Size

## Accessible FUSE 100% SAFETY SWITCHES

This Wadsworth Accessible Fuse Switch meets the continuous forward movement for

"Safe"

"Adequate Wiring"

Meter Service Switch Installation

This combined with the ample wiring space—all terminals, blades and jaws in clear sight, you have a switch that is easy to wire and inspect. Features that mean faster work and a better job.

**The WADSWORTH ELECTRIC MFG. CO. INC.**  
Corington, Kentucky

*New Catalog Ready for Distribution*

**FOR 60 DAYS ONLY!**

We Offer You This 26" Unit  
with a 13½" Guaranteed  
Reflector at

**25% less than ever offered**



Call your  
Jobber today  
for new price

### AN OPEN LIGHT WITH A GUARANTEED REFLECTOR

Number 950 accommodates 300 Watt, 500 Watt, 750 Watt, 1000 Watt, 1500 Watt P. S. Lamp. It is adjustable to all angles and degrees for mounting on a 2" iron pipe. Has a very heavy and durable enamel. Is fitted with genuine rayalium double dome reflector, measuring 13½" wide and 6" deep. Double dome shaped and chemically etched. The socket housing is made with the view of keeping the weather out and of keeping the base of the lamp cool. The apron is made of heavy body stock, highly enameled.

Packed in individual cartons.

**We will Replace free of charge any  
reflector that goes bad in  
20 years of service**

#### Write us or our agents

Melville C. Shine, 271 Franklin St., Boston, Mass.  
J. H. Felgenbaum, 6240 Walton St., Philadelphia, Pa.  
Wm. E. Winchester, 243 LeRoy Ave., Buffalo, N. Y.  
Korfeldt Company, 329 Seventh St., So., Minneapolis, Minn.  
Al. E. Dusseau, 503 Detroit Savings Bank Bldg., Detroit, Mich.  
The Business Getter, 701 E. 8½ St., Houston, Texas.  
Harold Lipp, 115 W. Third St., Cincinnati, O.  
Panama Lamp & Commercial Co., 815 Howard St., San Francisco, Cal.  
Panama Lamp & Commercial Co., 737 Terminal St., Los Angeles, Cal.  
Joseph Slade, 10045 113th St., Edmonton, Alberta, Canada.

**The Marbelite Art Products Co.**  
2652 W. Lake St. Chicago

#### TEAR OUT AND MAIL

Marbelite Art Products Co.,  
Chicago, Ill.

Please send me descriptive bulletin of  
your No. 950.

Name .....

Address .....

ing worked on by the state legislative committee.

The new Duluth electrical ordinance recently proposed will be included in the new building Code this year.

The officers of this new association are D. Ehlert, president; William Johnson, vice-president and R. Granquist, secretary-treasurer.

#### Good Elected President Elizabeth Association

The following officers were elected by the Master Electrician's Association of Elizabeth, N. J., at its recent annual meeting: John A. Good, president; J. H. Gernandt, vice-president; William E. Kenser, secretary, and Felix C. Heick, treasurer.

#### Ohio Contractors Condemn Sub-Standard Wiring

One of the high-lights of the meeting of the Ohio Electrical Contractors Association held June 19 and 20 at Toledo, Ohio, was the adoption of a resolution condemning the use of armored cable having one conductor bare which is used as grounded neutral conductor in range wiring, violating the rules of the National Electrical Code. The association will notify the Ohio Power Company and all other utilities operating within the territory of its membership, that members will install only wiring complying with National and local codes.

Another resolution adopted was to refrain from using all wiring material known as non-metallic surface



**ELECTRAGISTS FLY TO CONVENTION:** These men chose the air route in attending the spring convention of the Iowa Association Electrical Contractor-Dealers at Burlington May 25 and 26. Left to right George E. Hummel, Hummel Electric Co., Davenport; Lloyd Zeug, Leithner and Weishar, Rock Island, Ill., and John D. Corry, Louis L. Corry Co., Davenport. The picture shows them about to hop for home.

## Always Look Before You Light

That sounds like good advice to a parachute jumper, but it's even better advice to electrical contractors.

The lighting of modern buildings has become an exact science as well as a fine art.

In order that the finest possible lighting effects may be secured for any building, we maintain a completely equipped lighting demonstration studio at our factory.

Here—with the hearty cooperation of our corps of experienced lighting engineers—a complete program of lighting effects can be worked out, and Hub equipment specially designed to produce every desired lighting effect.

You are cordially invited to make free use of all of our facilities as it fits your convenience. The complete facilities of our capable organization are yours to command.

Write for your free copy of comprehensive Lighting Handbook just published. We will be glad to send it to you.

## HUB ELECTRIC COMPANY

**Complete Electric Lighting  
Equipment**

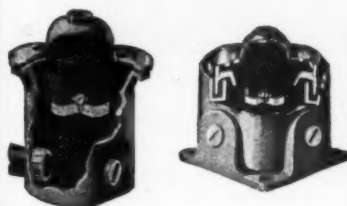
**Factory and General Offices  
2219-2225 West Grand Avenue  
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# "LATROBE" (Fullman Mfg. Co.) PRODUCTS are known as THE BEST

Carried in Stock  
by over 300  
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Write for New Catalog  
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on your letterhead and mention  
name of your Jobber.

**FULLMAN  
MFG. CO.**  
LATROBE PA.



**STOCK SELLS SERVICE**—T. Terwilliger, Electrical Service Co., Mount Vernon, N. Y., sells motor repairs and other electrical service by letting his customers know that he has parts for their jobs, and that work will not be held up for lack of materials. In order to keep a sufficient stock plant surveys are made in addition to studying records of materials used in the past by customers.

extensions as it lowers the standards of electrical wiring.

Many topics were discussed at this meeting, including the new state safety code, the standardization of electrical meter equipment, steel tubes, objection to the use of armored service cable, and electric range installation.

A motion was made that the Board of Directors take up further the affiliation of the association with the Association of Electragists, Int.

Speakers at this meeting included E. D. Brown of Detroit, Great Lakes committeeman of the A. E. I.; A. Penn Denton, engineer-director, armored cable section, N. E. M. A., and F. L. Lucas, chief engineer of the electrical inspection department of Toledo.

## Kansas City Makes Check of 1930 Electrical Fires

While the number of fires due to electrical causes in Kansas City, Mo., during 1930 were virtually the same as in 1929, only 78 were due to defective wiring as against 90 in 1929 and 91 in 1928, according to a report recently published by the Electric and Radio Association of that city.

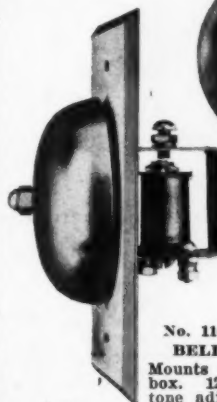
In addition to defective wiring, 13 fires were due to defective appliances; 33 to careless handling of appliances; 10 to radio and 18 miscellaneous, making a total of 152 for 1930.

# LAKE A-C No-Contact Signals Never Wear Out

2½" TO 14" BELLS,  
Standard Type  
shown at right, or  
Underdome Monitor  
Type Available, Are  
all Underwriter Ap-  
proved.



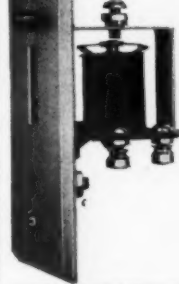
No. 700 Series  
Cut shows 700-8"  
bell. Furnished  
with 12-to-24 V.  
110 V. and 220 V.  
coils.



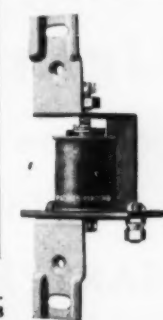
No. 116 COMBINATION  
BELL AND BUZZER  
Mounts over single gang  
box. 12 V. std. coil, with  
tone adjustment. Price, to  
dealers, \$2.10.



No. 120-7 FLUSH RETURN  
CALL BUZZER STATION  
Fits Single Gang Box.  
Price, 12 volts, \$2.40.



No. 124 FLUSH  
12 volt Buzzer fits Sin-  
gle gang box. Price, \$78  
without plate. Tone ad-  
justment.



No. 112 SUR-  
FACE 12 VOLT  
BUZZER  
Tone Adjustment  
Price, Black,  
\$1.08  
Nickel, \$1.20.  
No Contacts.



Two Factories to Serve You  
**National Time & Signal Corp.**  
7700 Grand River  
Detroit, Michigan  
and  
**LAKE MFG. CO.**  
Oakland, California



## ANNOUNCING DAY-BRITE'S NEW CATALOG



If you are interested in more business—get this new Day-Brite Catalog No. 9. It contains dozens of new items that offer splendid opportunities for profitable sales.

Write directly to us, or ask your regular  
Jobber for a copy.

REFLECTOR **DAY-BRITE** COMPANY  
3825 Laclede Ave.- Saint Louis

**Night  
Lighting**  
jobs are easy  
to sell with

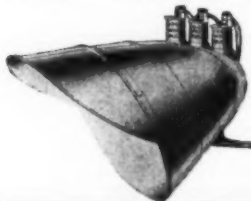


## GIANT FLOODLIGHT PROJECTORS

Giant Night Lighting installations help to sell themselves because they are **PROFITABLE** to the user. Baseball clubs report attendance has trebled and quadrupled with Giant Floodlight Projectors—and the cost of installation was paid for out of the **EXTRA** profits of the first few games! The same is true of football, tennis, bathing pools, oil stations and

numerous other fields in which floodlighting is taking hold so rapidly.

Let Giant Engineers help **YOU** to get a slice of this extremely profitable business this year. We co-operate with the Electrical Contractor 100% and help in the development of business in your community. Write for catalog and complete details.



## Giant Mfg. Co.

Dept. E.C.

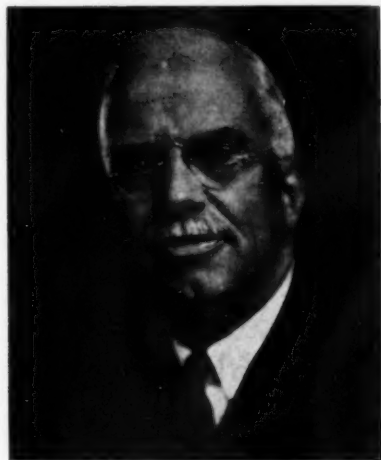
Council Bluffs, Iowa

Trenton, N. J.    Oakland, Calif.



### F. P. Vose Resigns from N. E. C. A.

Frederic P. Vose, after continuous service of 35 years with the National Electrical Credit Association, has resigned as secretary of the associa-



F. P. Vose

tion, and will be succeeded by Col. F. A. Lind.

Mr. Vose was general secretary and counsel of the National Electrical Credit Association and Electrical Credit Association, central division, since 1896. He has also been editor of the monthly publication, *The Viewpoint*, of the N. E. C. A. since 1915.

Mr. Vose will not be entirely disassociated from the work of the association because the law firm of Vose and Lind, of which he is senior member, will continue to act as legal counsel to the association.

### Re-elect Frierson to Head Savannah Contractors

Norton Frierson was re-elected president at the July 10 meeting of the Electrical Association of Savannah, Ga. John A. Walsh was also re-elected vice-president. J. M. Braswell was elected secretary and treasurer, succeeding J. E. Cretty, who has served in this capacity for the past two years.

### Harry Jasper

Harry Jasper, well known Jersey City contractor, died June 15. The steering knuckle of his car is said to have broken while crossing a viaduct at Jersey City. The car then plunged over a guard rail to a 50-ft. drop with fatal results. Mr. Jasper was 40 years of age.



## A ROLL O' TAPE

*Electrical flash-  
es gathered  
among the Big  
Wire-and-Pipe  
Men by*

Coit A. (Duke) Smith  
and Walter Holmes

Field Editors, ELECTRICAL CONTRACTING

ADD to that growing list of contractors who did, or do, hold public office the name of Herman A. Clinque, South Norfolk, Conn. Mr. Clinque has been appointed city constable.

S. BRESLAUER, Brooklyn, recently completed the wiring of a large college building where electrical engineering is taught. When the work was done he presented the college with a layout showing every pipe and every wire on the job, also connections, panel boards, etc. These drawings, it is understood, are used as a part of the class instruction in correct wiring methods.

THE Morrison Electric Co., Thirteenth and Washington Streets, Portland, Ore., has been purchased by H. H. Parrott and H. C. Ploense, employees of the company. The company, which is an A. E. I. member, has been in existence for twenty-five years. Mr. Parrott has been with the company twenty-four years and Mr. Ploense nine years. The company will retain its name and remain at the same location.

MRS. DELLA BEST of Best Electric Company, Ames, Iowa, is undoubtedly one of the most efficient woman range sellers in the country. She began to take it seriously several years ago and in 1930 reached the point where she held a class for the Ladies' Auxiliary of the State Contractor Dealer Association and other interested women. She gave a complete talk on the selling and handling of ranges and the information has proved valuable to many of these women who assist their husbands in the store.

WHEN the Meeks-Collins Electric Company, Norfolk, opened their new store and shop last November they were literally the "talk of the town." Seventeen merchants in that block had open house and kept their stores open till 10 P. M. on the opening day. Music

## FREE CUTTING and EASY BENDING



*The Symbol  
of Conduit  
Quality*



See also our Catalog in  
ELECTRICAL TRADE  
CATALOGS

**The STEELDUC CO.**  
Youngstown, Ohio

## FLEXIBILITY in Outdoor Lighting

Single, Double or Multiple bracket mounting with New "Quad" 1000 Watt Rectangular Reflector is the "Quad" answer to outdoor lighting demands.

**Inner Beam Projector**  
*Chromium Finish on Copper*

Adjustable Focus, 750—1500 W.—builds up lighting intensities at more distant points.

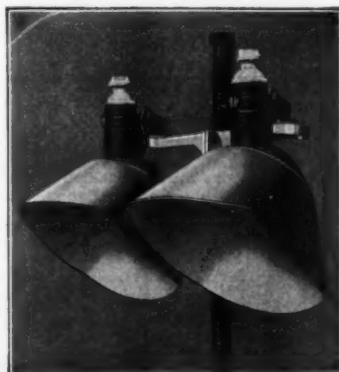
Use "Quad" catalog as Hand Book of Lighting Data. Ask for circular if misplaced, illustrating and describing new outdoor lighting equipment. Complete catalog on request.

1000 W. Reflector, 16x18", adjustable brackets of cast aluminum. Also Single, Triple or Multiple mounting. Reflector may be fitted with Inner Beam Projector.

**QUADRANGLE  
MANUFACTURING CO.**

30 South Peoria St.

Chicago



## Save Time and Money With a Greenlee Bender



Contractors can save considerable time and money on every job by using a Greenlee Conduit Bender. The machine is portable, won't distort metal and works at a speed that will surprise you. Equipped with attachments for bending both standard and thin-wall steel conduit. Above view shows the bender when fitted for standard conduit. Built in two sizes. No. 770 bends 1¼, 1½, 2, 2½ and 3-inch conduit. No. 775 bends 2½, 3, 3½, 4 and 4½-inch conduit.



Above is the No. 770T with attachments which solve the contractors problem of how to bend thin-wall steel conduit. With the Greenlee, conduit can be bent quickly without crushing, a full 90 degree bend made with one complete forward movement of the power ram. Does away with the purchase of manufactured bends and some fittings and permits easier pulling of wire and cable. Attachments for 1¼, 1½, and 2-inch sizes. Write for prices. This machine will make money for you.

**GREENLEE TOOL CO.**  
**ROCKFORD, ILL.**

8-31

Please send complete information on your hydraulic benders with attachments for both standard and thin-wall steel conduit.

Firm .....  
Name .....  
Street .....  
City .....  
Name of Jobber.....

was furnished and souvenirs were distributed. Newspapers devoted several columns in telling of the affair and of progress made by the firm since their opening 30 years ago. Neighboring merchants ranging from corset shops to grocery stores contributed special advertising space for congratulations on the event.

**FARR ROBINSON & BIRD, LTD.,** Vancouver, Electragists, are specialists in industrial wiring for light and power. They are fully equipped to take care of the largest job and their installations include many large projects. The most recent contract include the light, heat and power wiring in all buildings of the Civic Airport and the lighting and power systems on the new Fisherman's Central Docks for the Vancouver Harbor Board. This company has been in business 21½ years.

**I** WAS glad to hear that the Schluter Electric Co. of Davenport, Iowa, is going strong on specialty wiring. In addition to oil burner and electric stoker installations, they have been concentrating on the electrical work on conveyor systems for coal yards. They put in ten of these latter installations in 1930.

**T**HE Albany Chapter of the Mohawk Electric League has decided that "enough is enough" as far as unfair practices of the general contractor are concerned. Those who obtain the lowest bids from the several trades, secure a contract on that basis, and then go "shopping" for even lower bids may find that this practice does not pay. The Albany Chapter condemns this practice and gives full cooperation to electrical contractors who refrain from soliciting business with "shopping" general contractors.

**H. S. PETERSON,** Peterson Electric Co., Rockford, Ill., sure believes in signs, if the one he has installed in front of his place is any indication. It is vertical, over 30 feet high, and of course is electrically lighted.

**JIM GRAY** has withdrawn from the Gray-Trimble Electric Co., Bloomington, Ill. His stock has been bought by Roy Trimble and various employees. The construction business of the firm will be carried on without other change.

**A**FTER hearing a lot of blues singers it's great to talk with a man like Stephen R. Wallys. He likes being a contractor and believes Delmar, N. Y. is one of the best little villages in the country. He should. In two blocks of Delmar there are 20 electric ranges installed. Wallys sold thirteen of them. There is no gas in Delmar so every new house has an electric range and Wallys, for one, doesn't care if Delmar never gets gas.



## Conduit and Cable Hangers

For all trough work or open wiring **MINERALLAC** Conduit and Cable Hangers save time and trouble. One screw or bolt and they are fastened quickly and securely.

Made of the highest grade spring steel. All sizes from ⅜" to 2½" inclusive.



Hanger without Porcelain Bushing



Hanger with Porcelain Bushing

## JEFFY CLIPS

**REQUIRE only one screw or bolt to make a good secure Job. They save contractors many hours of labor. Accommodate pipe from ⅛" to 1¼".**



**MINERALLAC**  
**ELECTRIC COMPANY**  
25 N. PEORIA ST. CHICAGO



**SPECIALIZATION** has been instrumental in increasing the volume of business of The Kester Electric Co., Terre Haute, Ind., since the first of the year. This company, which specializes in mine, factory and elevator motor repair work, is at the present time exceedingly active with a number of large jobs for several of the coal companies with mines located in Indiana.

"**THE** lightest place in town," was the slogan of the Thompson Electric Company, Raleigh, N. C. Then they vacated the old store. The enterprising merchant who moved in continued to use the lights of the old building and increased his business through maintaining the old slogan of the store, "The lightest place in town." Now there's a selling point for the contractor-dealer who wants to rent or sell his store.

**THE** old battle of a.c. vs. d.c. goes merrily on, with the latter executing a dignified but steady retreat before the onslaught of modernization. Comes one W. W. Rice, manager of the Electragists' Chapter in Memphis, Tenn., and deposes that his city now has only 15 buildings using direct current. The work of changing over has been going on there for several years.

"**THE** wiring in this building shall conform to the California Red Seal Standards. The Electrical Contractor shall arrange for the necessary inspection and shall deliver the Red Seal Certificate to the owner." The above stamp is imprinted on all leases executed by the Marblehead Land Co. on ocean beach property in the Malibu district between Santa Monica and Ventura in Los Angeles County, Cal. These districts are mainly populated by motion picture people who appreciate the need of the best wiring possible.

**THE** Crawley Electric, Peoria, Ill., goes in heavy for lighting of all kinds, and does most of the selling from the display in the store. Having moved into a new place, Mr. Crawley paid special attention to the arrangement of the display units. The residence and commercial numbers are neatly separated; the side walls are used for brackets and a long shelf, table-high shows off the table lamps to good advantage.

**I** HEARD that the Electric Construction & Machinery Co. of Rock Island was mighty strong for quality material. Without telling him what I had heard, I sounded out Wm. J. McNealy of this company and he proved to me very quickly that 99 per cent of the material they used is A-1. This brings out the results of our recent survey which showed that the majority of the contractors are anxious to use good stuff.



Type A



Type B



Type C

# RUGGED RALCO RECEPTACLES



Type PRG Plug



Type D



Type HB



Type HF

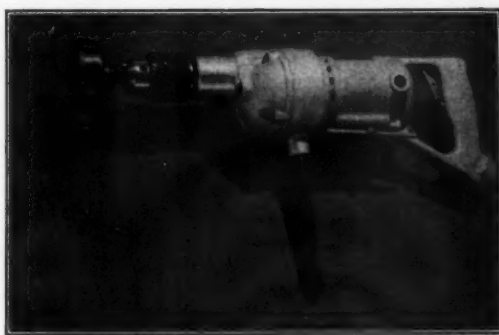
The Circuit Breaking Receptacles and Plugs illustrated, have self-aligning floating contacts, arc resisting insulators, self-closing covers, and separate terminals for protective ground.

Very easy to wire, made in 2, 3 and 4-Pole, 30 and 60 Ampere. Approved for use on both 250-Volt D.C. and 600-Volt A.C. Circuits.

If you do not have our Catalog and Bulletins, write for them.

**Ralco Manufacturing Company**  
Designers & Manufacturers  
125 No. Albany Ave.,  
Chicago, Ill.

## Cut the Cost Increase the Profit



that's just what the Red Streak 1/4" Slow Speed Drill was designed to do. How? By using it with a hole saw to cut holes up to 3" diameter, or drilling with 1" wood bits. It will work fine on jobs

where you need holes to run conduit or BX through wood or unusually hard metals.

It's a sure way to cut costs. The drill will pay for itself in savings.

Use Coupon for Complete Story

**WAPPAT** 47 Braddock Ave.  
INCORPORATED Pittsburgh, Pa.

A Division of Simonds Saw & Steel Co.

Name .....

Address .....

City .....

**When Things Go Wrong -ELECTRICALLY**

Use the Practical  
**POCKET-TESTER**

**Test-  
-Lite**

Pat. Oct. 21 '30  
No. 1,778,885

**DETECTS FAULTS**

In Light and Motor Circuits,  
Spark Plugs, Household  
Appliances

Tests Any Voltage Between  
100 and 550 A. C. or D. C.—No  
Switches Required

**L. S. BRACH MFG. CORP.**  
NEWARK, N. J. TORONTO, CAN.

**\$150**

### A. C. Electric Plants



ONAN ALTERNATING CURRENT ELECTRIC PLANTS furnish the same current as city service—110 volt, 60 cycle, A. C. Operate Radios, Water Systems, Refrigerators and all Household Appliances.

#### Sizes 500 to 1,800 Watts

Available from stock. No battery used except to start the engine. Ideal for places remote from electric service such as farms, camps, lake homes; also for standby equipment, and sound amplification.

Also a complete line of D. C. models, 350 to 1,500 watts.

*Some Dealer's Territory Available.*

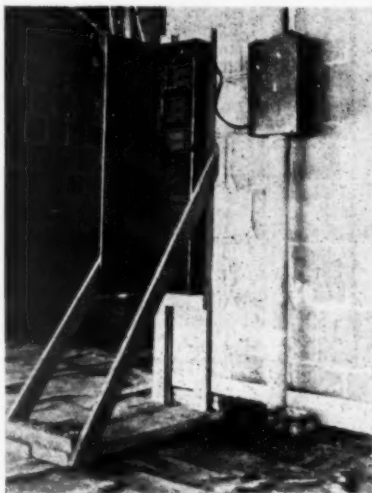
#### D. W. ONAN & SONS

352 Royalston Ave. Minneapolis, Minn.

## PRACTICAL METHODS

### Switch Box Racks for Temporary Work

J. Livingston & Co., New York, uses these portable switch box racks for temporary work as shown in the



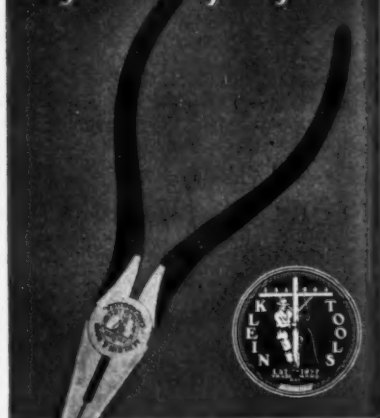
THE STAND IS PORTABLE

photo. This is made from planks and boards nailed together in a few minutes. The stand may be taken from one part of the building to another if necessary so that the rack once built is used until the building is completed.

### Armature Stand

This armature stand was made from pipe and channel iron by Charles Menge, Jersey City. One side of the stand may be raised by screwing down on the round lock nut resting on the pipe top (see upper right side of stand). This feature is convenient in directing the flow of solder. Stand may also be widened to accommodate larger armatures. Channel iron at the right side, base of stand, fits over that on left and when slid out to proper width it is bolted fast (see bolt and slot in base). The cross pipe at the right slips over the smaller one on the left.

Buy from your jobber



**Only KLEINS are good enough**

In the electrical field, "since 1857" Klein Pliers have been the standard. Side-Cutting or Long Nose, Oblique-Cutting or Duck Bill—just the Pliers you want for every job.

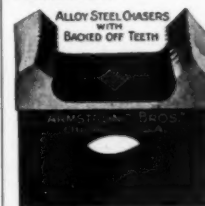
**Mathias KLEIN & Sons**  
Established 1857  
3200 BELMONT AVE., CHICAGO

## ARMSTRONG BROS. Adjustable Pipe Dies

**EASY** cutting, long lasting —ARMSTRONGBROS. Pipe Dies are made of special Vanadium Tool Steel that takes a keener edge and holds it.

"Drag" common to ordinary pipe dies is eliminated from these by clearance from the cutting points. Chasers are "backed-off."

The knowledge gained through over 40 years of specialization in metal cutting tools is embodied in these dies which have as additional improved features: Correct Cutting Angle, Correct Throat Angle, and Ample Chip Clearance.

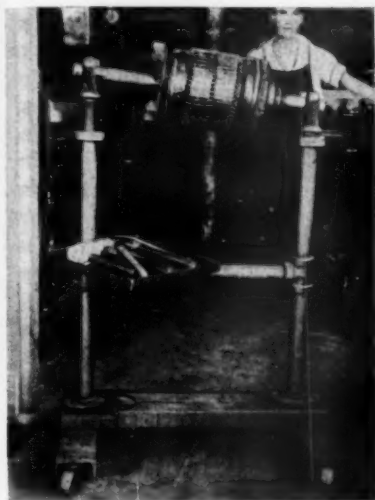


Write for Catalog P-10 — for description and prices of the "Better Pipe Tools" distinguished by the Arm- and -Hammer Trade Mark.

### ARMSTRONG BROS. TOOL CO.

"The Tool Holder People"  
341 N. Francisco Ave., CHICAGO, U. S. A.

A tray for commonly used tools is fastened to the pipe on the left with

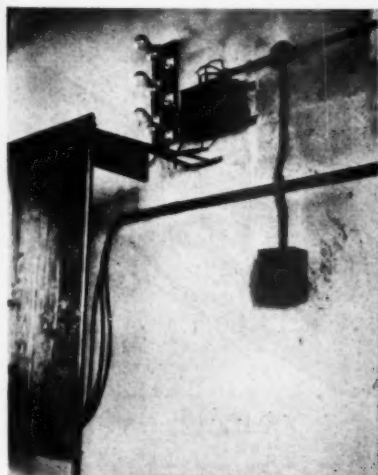


ADJUSTABLE AS TO HEIGHT AND WIDTH

a loose band that allows the tray to be swung in any direction.

### Equipment for Testing for Motor Grounds

For testing motors for grounds the Fredholm-Oman Co. of Rockford, Ill., has erected a breakdown test transformer and hooked it up in se-



BREAKDOWN TEST TRANSFORMER

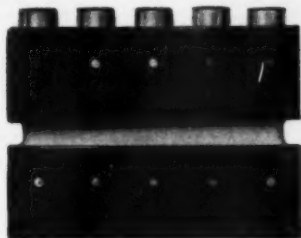
ries with the bank of six 60-watt, 230-volt carbon lamps. There are three taps on the secondary which are connected to the test board and with 220 volts on the primary these taps will deliver 700 volts, 900 volts and 1600 volts in the secondary. The lamps protect the transformer and show approximate voltage leakage.

### "Ganging-Up" Simplified

WITH THESE ADAPTi Connectors you can assemble any of the entire 2500 Line of Gang Switch Boxes into a neat, rigid, perfectly-grounded group with less trouble than in any other way. Made in one, two, three, four and five way types, so as to fit any number of gangs needed; and used in place of the original removable outlets, as shown. A simple, Adapti method of overcoming a troublesome difficulty.



No. 791  
Single Type Connector



This cut shows two five-gang boxes connected together in tandem with a No. 795 connector lug.



No. 792—2-Gang



No. 793—This for 3 Gangs



No. 794—For 4-Gang Jobs



No. 795—For 5-Gang Switch Jobs

Write for  
Page 14  
of  
Catalog  
107

### The ADAPTi Co.

2996 East 72nd St., Cleveland, O.

NEW YORK CITY—A. Stone, 112 East 23rd St.  
CHICAGO—United El. Sales Co., 300 W. Adams  
BOSTON, MASS.—James H. Healey Co., 120 Pearl St.

PHILADELPHIA, PA.—Craven Electric Sales Co., 30 Bank St.  
LOS ANGELES—American Electric Supply Co., 225 East 4th St.

### Outdoor FLOODLIGHTS for every purpose

REQUIREMENTS vary—so Kliegl floodlights are made in a number of different types to permit a selection best suited to your needs—giving the maximum light, at a minimum cost, with the utmost satisfaction. They are made for close-range or long-range lighting, with a concentrated or wide-spread light beam, and every unit is guaranteed, well made, highly efficient, and economical.

Advise us about your conditions—what you want to light, and the problems that confront you. We will gladly offer recommendations, and send descriptive literature of our complete line of outdoor floodlights.

### KLIEGL BROS

UNIVERSAL ELECTRIC STAGE LIGHTING CO., INC.

321 WEST 50th STREET NEW YORK, N.Y.



No. 1620



No. 558



No. 556



No. 565



No. 1600



No. 1610

KLIEGL OUTDOOR FLOODLIGHTS



## A BIG MONEY SAVER

Eliminates triple handling—unwinding—measuring and rewinding wire, thus saving time and money. Manually operated—reels wire into neat coil, automatically counting and registering number of feet. Strongly built of heavy selected materials so as to last a lifetime.

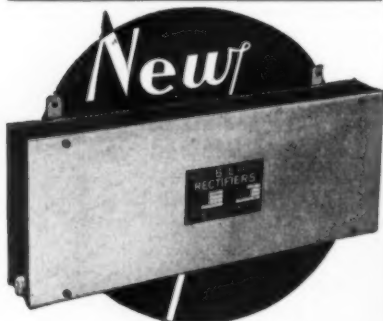
### It Pays for Itself

Send for bulletin.  
Write us or your jobber.



**Minneapolis Electric  
and Construction Co.**

80 S. 12th St.  
Minneapolis Minn.



### Construction on B-L Rectifier Assemblies

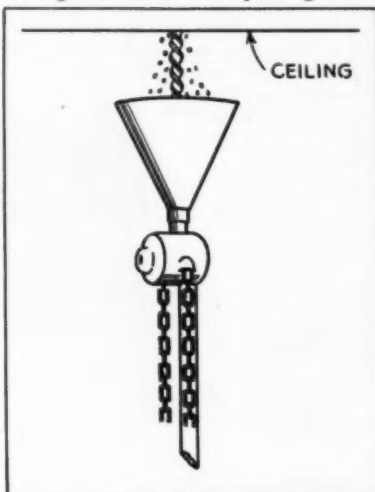
The B-L Assemblies illustrated above are now housed in steel cabinets of new design, with added features . . . Cabinets are of heavy gauge steel with aluminum finished covers held in position by 4 screws . . . Mounting lugs conveniently located for easy installation . . . Porcelain bushings for intake and output . . . Ample ventilation on 4 sides. This type of cabinet construction lowers production costs and enables us to quote reduced prices and added discounts to jobbers and contractors. Wherever low-voltage direct-current is necessary, B-L Rectifiers will do the job quietly, efficiently, and usually at a lower cost. They are ideal for replacing storage batteries and furnish dependable rectified current for the operation of electric time clocks, signal systems, etc. Literature explaining their many uses and applications will be sent upon request.

**The B-L Electric Mfg. Co.**

Dept. C  
ST. LOUIS, MO., U. S. A.

### A Clean Way of Using the Boring Machine

The Dunn Electric Co., Cleveland, Ohio, has a neat and inexpensive way of catching the dirt made by the boring machine while putting holes

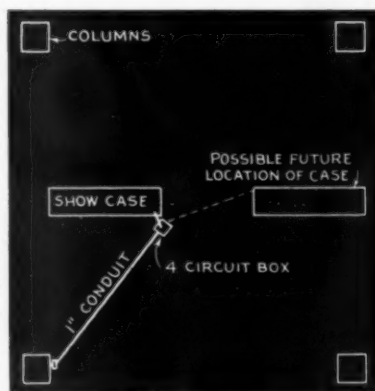


THE FUNNEL CATCHES ALL  
DIRT.

in ceilings. As shown in the illustration, a funnel of the proper size is slipped over the bit so it fits snugly. All the plaster and shavings fall into the funnel.

### Show Case Wiring

The Alliance Electric Company, New York, always has an eye to the future in department store show case wiring. In running out from a col-



### SAVES ON CHANGE-OVERS

umn to a show case floor outlet they use 1-in. conduit and a 4-circuit box. If another show case is to be lighted nearby in the future only a short run is necessary. As department stores are continually changing the location of displays the saving of this method is considerable.

### TRADE PAINE MARK



### PAINE SECTIONAL SWITCH BOXES

Conduit, BX, Loom, Romex  
Galvanized—Enameled  
**BIG TIME SAVERS**  
Easily Gangable  
Clean Knockouts  
**EXCEPTIONALLY  
LOW PRICES**

Sample on request

**ASK YOUR JOBBER OR  
WRITE FOR PRICES**

### THE PAINE COMPANY

2945 Carroll Ave.  
79 Barclay St.

Chicago, Ill.  
New York City

## YES! YOU CAN MAKE SALES



### HOW?

## SELLING LIGHT BY THE ROOMFULL!

Current issue of Wiremold's famous Business Builder, "The Wiremold Idea," tells how to sell light by the SHOP FULL—STORE FULL—OFFICE FULL—ROOM FULL. Be sure to get your free copy.

**WIREMOLD**

WBB HEADQUARTERS  
HARTFORD, CONNECOTICUT

Here is a partial list of those who have specified underfloor duct:

ABBOTT MERET & CO.  
EARL ABEL  
A. H. ALBERTSON  
ALFRED S. ALSCHULER  
NORMAN T. ANTHONY  
THE AUSTIN COMPANY  
THE BALLINGER CO.  
RALPH B. BENCKER  
A. BRUNER & ASSOCIATES  
BUCHANAN & KAHN  
D. H. BURNHAM & CO.

FRENCH & HUBBARD  
A. F. GIBBERT  
CASS GILBERT  
B. W. GOODHUE  
GRAHAM, ANDERSON,  
PROBST & WHITE  
SAMUEL M. GREEN CO.  
GUILBERT & BETELLE  
HALSEY, MCCORMACK &  
HELMER, INC.  
HEACOCK & HOKANSEN  
HELMLE & CORBETT  
FRED M. HILL  
HOOGSON BROTHERS  
HOLABIRD & ROOT  
HOLLIS & FRENCH  
RAYMOND HOOD  
HOOD, GOOLEY &  
FOUILLOUX  
HOWELL & THOMAS  
HOWLAND & KEAY  
HUBBELL & BRINES  
J. OSBORNE HUNT  
R. H. HUNT  
HUNTER & HUDSON  
THOMAS M. JAMES  
JANSEN & COCKEN  
PHILLIP H. JOHNSON  
SULLIVAN JONES  
ALBERT KAHN, INC.  
KAISER, MULLER &  
DAVIES  
KIDD & KIDD  
R. D. KIMBALL  
BEVERLY S. KING  
KIRKHAM & PARLETT  
CHARLES Z. KLAUDER  
LANG & WITCHELL  
LOCKWOOD, GREENE & CO.  
LUDLOW & PEABODY  
DAVID LYNN  
MARYE, ALGER &  
VINOUR  
MCKIM, MEAD & WHITE  
J. H. MENCKE  
MEYER, STRONG & JONES  
CHAS. B. MEYERS  
MONKS & JOHNSON  
BENJAMIN W. MORRIS  
NEILER, RICH & CO.

NEW YORK STATE  
ARCHITECT  
PARKER THOMAS & RICE  
PATTISON BROS.  
CLYDE R. PLACE  
GEORGE B. POST & SONS  
PRUDY & HENDERSON  
LOUIS T. M. RALSTON  
RANKIN & KELLOGG  
REEDER, EISER & AKERS  
RITTER & SHAY  
DWIGHT P. ROBINSON  
JOSEPH GAMBLE  
ROGERS  
J. C. RUNYAN  
RUNYON & CAREY  
H. CRAIG SEVERANCE  
SHREVE, LAMB &  
HARMON  
SIMON & SIMON  
CLIFTON E. SMITH  
SMITH, HINCHMAN &  
GRYLLS  
SMITH & MAY  
SPROATT & ROLPH  
STARRETT & VAN VLECK  
STEWARTSON & PAGE  
STONE & WEBSTER  
FRANK SUTTON  
TAYLOR & FISHER  
TENNEY & OHMS  
I. R. TIMLIN  
TROWBRIDGE &  
LIVINGSTON  
HORACE TRUMBauer  
UNITED ENGINEERS &  
CONTRACTORS  
WILLIAM VAN ALLEN  
VOORHEES, GMEIN &  
WALKER  
WALKER & GILLETTE  
WALKER & WEEKS  
WARREN & WETMORE  
GEORGE WESCHLER, INC.  
JAMES A. WETMORE  
JOHN T. WINDRIM  
WADDY WOOD  
YORK & SAWYER  
ZANTSINGER, BORIE &  
MEDARY

**300** architects  
and engineers  
can't be wrong!

CHILDS & SMITH  
CLINTON & RUSSELL  
HENRY IVES COBB  
CHAM & FERGUSON  
CROSS & CROSS  
DANIEL, MORAY &  
WALLEN  
J. G. DAVENPORT  
DELANO & ALDRICH  
DENSMORE, LE CLEAR &  
ROBBINS  
DIETEL & WADE  
W. DUSENBURY  
LEWIS E. EDEN  
ELY & ELY  
W. H. EMORY, JR.  
FELHEIMER & WAGNER  
I. H. FRANCIS

SINCE 1921, when the first underfloor wiring system was installed, over 300 architects and engineers have specified underfloor duct. In the most prominent buildings throughout the country, hidden race-ways of duct, under the floor, meet every existing demand for electric outlets and provide for future expansion.

With tenants demanding underfloor duct, and considering the convenience and flexibility of wiring possible, your building cannot afford to be without it.

Follow the experience of over 300 architects and engineers—include underfloor duct in your building plans.

*Specify* **UNDERFLOOR DUCT**

# Manufacturers News

*A department for the announcement of activities of manufacturers that are of interest to contractors, such as changes in executive personnel, branch offices, new products, etc.*

## Frink Corporation Elects Officers and Directors

At a recent meeting of the board of directors of the Frink Corporation, Long Island City, N. Y., the following officers were elected:

John L. Dudley, chairman of the board; William H. Spencer, president; Robert Booth, vice-president and treasurer; Louis Roth, vice-president, and Theo. J. Brassel, Jr., secretary and assistant treasurer.

The new board of directors is comprised of T. Towar Bates, Robert Booth, John L. Dudley, Charles G. Edwards, Paul Heinzelmann, J. A. C. Jansen, Clarence G. Michalis, Ferdinand L. Smithe, Melvin Spencer, W. H. Spencer and Willard U. Taylor.

At this same meeting the Sterling Bronze Co., Inc., a division of the Frink Corporation, elected William H. Spencer, chairman of the board; Louis Roth, president; Robert Booth, vice-president, and Theo. J. Brassel, Jr., secretary and treasurer.

Harold E. Murphy, who, for many years, represented Colt's Patent Fire Arms Mfg. Co. in the Michigan territory, has resigned to become a manufacturer's agent in Chicago. He now represents Central Tube Co. and General Devices & Fittings Co. in Illinois, Indiana, Iowa and eastern Wisconsin, maintaining offices at 1108 Engineers Building, Chicago.

## Formal Opening of New Plant

On Saturday, June 27, Reflector & Illuminating Co. formally opened its new office and factory at 1431-1435 West Austin Ave., Chicago. Over 400 contractors, jobbers and dealers attended and were received by J. C. Herron, president, in his new office. Inspection tours were made by various groups and each department contributed its operation to a practical

demonstration of the making of Sterling reflectors.

A buffet luncheon was served at noon, with dancing and other forms of amusement furnished throughout the afternoon. Special entertainment was provided for the ladies, who attended in the evening, consisting of music, singing, refreshments and dancing.

## Samuel H. Couch Heads Board

At a recent meeting of the S. H. Couch Co., North Quincy, Mass., Samuel H. Couch, who founded the company 37 years ago, and has served as both president and treasurer ever since, was elected chairman of the Board of Directors.



Samuel H. Couch

The other officers elected are Archie T. Morrison, president, who has been general manager for the past 13 years; J. Eric Atkinson, vice-president, who has been factory sales manager for five years; Donald F. Cameron, treasurer, and William Couch, director.

The company also announces the acquisition of the Blake Signal and

Manufacturing Co. and will continue to manufacture Blake insulated staples at the Couch factory. Blake sales representatives will continue as Couch representatives for Blake insulated staples.

## G. E. Orders for First Half

Gerard Swope, president of the General Electric Co., Schenectady, N. Y., announces that orders received by the company for the first six months of 1931 amounted to \$141,428,978, as compared with \$190,313,758 for the corresponding period last year.

National Electric Products Corp., Pittsburgh and New York, announce the opening of their own branch at 400 Potrero St., San Francisco, Calif. Garnett Young & Co., who represented the National Company, resigned April 8, taking effect July 15.

The Trumbull Electric Mfg. Co., Plainville, Conn., announces the appointment of W. J. Batchler as salesman covering the District of Columbia, Maryland, Virginia and North Carolina in place of F. G. Marden who has resigned.

The Wadsworth Electric Mfg. Co., Inc., Covington, Ky., has published catalog No. 100-A, which fully describes and illustrates Wadsworth safety electrical switches and distribution panels.

General Electric Supply Corp. of Buffalo, N. Y., has announced the opening of its new warehouse, showrooms and offices at 151 West Mohawk Street. R. D. Glennie, division manager, is in charge of the Buffalo office.



# JEFFERSON UNION RENEWABLE FUSES



New Ferrule Type Jefferson-Union Renewable Fuse. Besides the link there are only three parts—casing and two one-piece end-caps.



Knife-blade type Jefferson-Union Renewable Fuse.

## NEW HANDY FUSE WRENCH



The handiest tool for tightening and loosening ferrule type renewable fuse caps. Comfortably sized each end—one for fuses of 1 to 30 amps., 250 volt size; the other for 31 to 60 amps., 250 volt, and 1 to 30 amps., 600 volt. Your wholesaler has it.

## GIVE YOU THE RIGHT START

AS  
PRODUCTION SWINGS  
BACK TO NORMAL

As more and more motor drives are put back to work, keep production lines clear and fuse maintenance to a minimum—with Jefferson-Union Renewable Fuses. Check up every circuit and see that each one has a good fuse in it.

Jefferson-Union Fuses save time and money. The Ferrule Type has end-caps in one piece, without loose washers or end-plugs, assuring positive contacts with fuse clips. Venting is through the caps, NOT the threads. Inspection and cleaning are easy and convenient. So is insertion of fusible link which automatically adjusts itself in length for a perfect fit. It is held diagonally in the casing and does not touch or char the casing. These are features that assure long life, low cost and quick renewal.

The Jefferson Knife-blade Renewable Fuse is equally simple—the new link can be inserted in a few seconds. Removing only one end-cap and loosening the studs permit easy insertion of link. These fuses are ruggedly constructed and long life is assured by an exclusive method of venting through the fibre.

Truly, Jefferson Fuses give you the right start toward increasing activity. Always use Jeffersons.

# JEFFERSON ELECTRIC COMPANY

1503 West 15th Street, Chicago, Ill.

## New Electrical Products



"Big Ben," an open type diffusing floodlight combining a long range forward throw of light with adequate ground coverage in areas near the unit has been placed on the market by the Benjamin Electric Mfg. Co., Des Plaines, Ill. It is constructed with a large inner reflector of oxidized aluminum surrounded by a larger porcelain enameled diffusing reflector and is weatherproof. Unit has cast aluminum mounting bracket which cradles fixture in a 3-point support and vertical adjustment of 60 deg. Slip fitter base for attaching to 2½ in. iron pipe allows fixture to be rotated horizontally with 2 heavy set screws provided in fitter. Fixture hood is fitted with removable cast aluminum cap carrying socket as a unit. Cap has 2 porcelain knobs at sides and fitted with a one-piece, porcelain insulated wire entrance bushing at bottom. Reflector is finished green on outside and white inside, with all metal parts of aluminum or cadmium plate.



A porcelain side-outlet socket, Edison base size has been announced by Pass & Seymour, Inc., Syracuse, N. Y. It can be supplied with either a ¼-in. or a ⅜-in. nipple. The socket has a short body-over-all, height 2 in. The terminals are located in the top of the porcelain body. The cap and body are joined by means of a single center screw. The socket is of the two-piece type, consisting of porcelain body and metal cap. The nipple is formed as a part of the metal cap.



QD safety ceiling collars in porcelain enamel for corridor and low ceilings is announced by Quad-range Mfg. Co., Chicago. The collar is designed to provide shallowest construction consistent with practical installation methods and has a screwless globe holder. Unit is made of vitreous enameling iron finished in three coats of porcelain enamel in light ivory finish. Other tints or white can be had upon request. All collars have knockout for canopy switch.

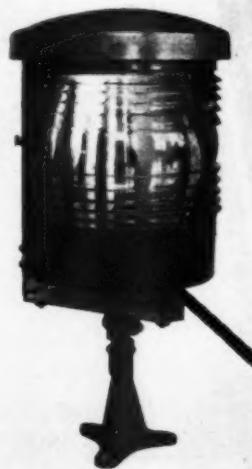
**CORRECTION:** The No. 950 floodlight announced by the Marbleite Art Products Co., Chicago, in our July issue should have read 13½ in. wide by 6 in. deep instead of 3½ in. wide as announced.



The Square D Co., Detroit, Mich., announces a power filter unit for supplying noiseless, non-pulsating d.c. power from ordinary a.c. lines for use with sound producing apparatus. This unit has no moving parts, the action being entirely electrical, has large condenser capacity and low impedance. Output voltage can be maintained within close limits. Unit also does away with necessity of storage batteries and dry cells. It permits a.c. low voltage for ringing, besides d.c. for talking and avoids the necessity for special circuits and relays for cutting out a.c. power supply when system is in operation.



The Dunco line of miniature relays, known as "Mid-Gett" is being made in 8 contact arrangements by Struthers Dunn, Inc., Philadelphia. They are on standard bases, measuring 1½ in. by 2¾ in., having 3-legged stool principle of construction, form-wound, moisture-proof coils, renewable contacts, accessible terminals, with moulded basis having a high dielectric. Units operate on from 6 to 120 volts a. c., or 24 volts d. c.



General Electric Co., Schenectady, N. Y., announces type ALF-2 floodlight designed for illumination of aprons in front of hangars, approaches to buildings and interiors and exteriors of hangars. Unit is constructed of non-rusting metal, weatherproof, equipped with adjustable, mogul screw base lamp socket for centering filament with respect to focal point of mirror and lens, has a Fresnel lens and 5 in. silvered-glass of spherical mirror; will accommodate either a 1000-watt, 115-volt, T-20 airway beacon lamp or a 500-watt, 115-volt, G-40 lamp. It is furnished for mounting on flat surfaces (vertical or horizontal) or mounting on a 2 in. pipe.

## Hidden Qualities

That can not be seen are found in every length of "GALVADUCT" Rigid Steel Conduit. These "hidden qualities" are in the protective zinc coating, applied electrochemically — and remain there permanently. The zinc will not flake, crack or chip off.



Manufacturers of high grade conduit for more than a third of a century.

**Garland Mfg. Co.**

Pittsburgh

Penna.

## MARTIN



**H. P. MARTIN & SONS**  
Owensboro, Ky.

## Position Open

For a man who thoroughly knows the electrical contracting business from the technical and construction side, and can write about it there will be a worthwhile opening shortly. This position will involve some traveling. Location, Chicago. If interested write giving complete information about experience, education, age, nationality, salary requirements, etc. Address all inquiries to Box 831, Electrical Contracting, 520 N. Michigan Ave., Chicago.

## Division Sales Managers Meet

The reports presented at the annual conference of the division sales managers and company executives of Van Cleef Bros., at its offices in Chicago, showed that the company's business compared favorably with that of the last two years, and a marked pick-up was in evidence.

## Westinghouse Opens Lighting Studios in Cleveland

A comprehensive display of lighting equipment is included in the Westinghouse Lighting Studios just opened in Cleveland, Ohio. These studios are located in the Cleveland works of the Westinghouse Electric and Manufacturing Co., and are the latest addition to the Westinghouse Lighting Service. The studios include displays of exterior, interior and mobile color lighting, and the latest developments in street, airport, flood, commercial, industrial and mobile color lighting equipment.

In addition to the above, the latest systems of control equipment are displayed in actual operation, including resonant control, pilot wire control (series and multiple), photo-electric tube control, radiotron control, time switches and reactance dimmers.

Gruber Brothers, 392 Broadway, New York City, announce their new catalog, Folio No. 31, featuring many recent designs in lanterns and exterior and interior fixtures.

## Appoints Quammen Manager of Philadelphia District

D. J. Quammen has been appointed manager of the Philadelphia district office of Cutler-Hammer, Inc., Milwaukee, Wis. Mr. Quammen succeeds Mr. F. J. Burd, who has been made assistant manager of the Chicago office of Cutler-Hammer. Mr. Burd will have charge of industrial sales in the Chicago district.

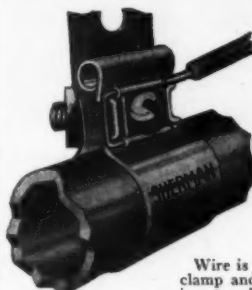
B. S. Barnard & Co., 130 Lafayette St., New York City, has just published a catalog describing and illustrating the tools and special equipment used with the installation and maintenance of electric conduit, cable and wiring distribution; underground, overhead and inside of buildings.



**T**HE Sherman is the only all copper one piece clamp which can be drawn up absolutely tight. A screw driver is the only tool necessary to apply. It is the only ground clamp that can be used for either soldered or solderless connections.

### NEW TYPE CLAMP

A new type of clamp combining the advantages of the well known Sherman Soldered Ground Clamp with a new solderless connection. Cannot work loose. Easy to apply.



Wire is formed around clamp and under retaining washer in such fashion that strain is removed from wire yet the most positive joint as yet developed in a solderless ground clamp results. A positive and rigid solderless connection.

Can be used as a soldered type by soldering wire in roll portion. Saves time—easiest to install. Highest quality—lower priced. Clamps are flexible sheet copper—Stout bolts are treated to prevent corrosion.

**H. B. SHERMAN MFG. CO.**  
BATTLE CREEK, MICHIGAN

## Lowest Prices

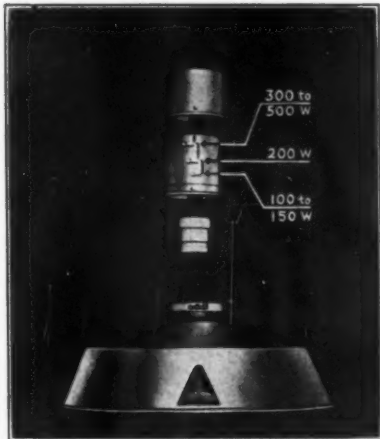
ON NATIONALLY ADVERTISED RADIO and ELECTRICAL GOODS



Write for this Book

**PARAMOUNT**  
ELECTRICAL SUPPLY COMPANY  
(WHOLESALE ONLY)  
606 W. ADAMS ST. CHICAGO





## FACTROLITE *is* Adjustable

By means of a patented cap-and-neck-bayonet locking device, the Factrolite Reflector may be raised or lowered instantaneously to light-center definitely various lamps as illustrated, insuring correct light distribution at all times. Heavy gauge, pure Aluminum, oxidized to silver-whiteness for perfect diffusion, is employed in Factrolite 16 inch reflectors. This material is permanent under all atmospheric conditions, cannot chip, crack, rust or yellow with age. 10% higher light output is guaranteed as well as whiter light. Adjustability will reduce stock requirements as Factrolite serves for practically all standard lamps.



Write for  
**FREE  
Samples**



Protect your Eyes by Glare Elimination—Freedom from Dust Accumulation—Absolute Permanence—Perfect Distribution of Light—No Maintenance—Cost less than other equipment. Made in four styles to supply every system of direct and indirect illumination. As originators we offer a full line of units for TruWat.

Write for Samples and Complete Literature  
**Bryant Park Electric Lamp Co.**  
260-262 West 41st St. - New York City

Manufacturer's Agents wanted for exclusive sales promotion among jobbers, dealers, industrial, etc.

Bryant Park Electric Lamp Co.,  
260-262 W. 41st St.,  
New York City.

Gentlemen: Please send us a sample of TruWat Reflector, also complete details on your entire line.

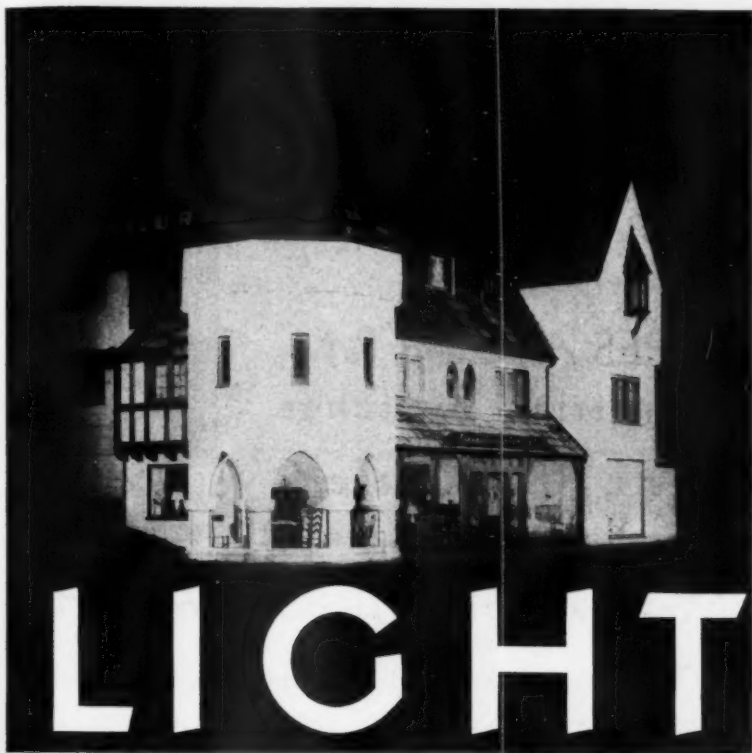
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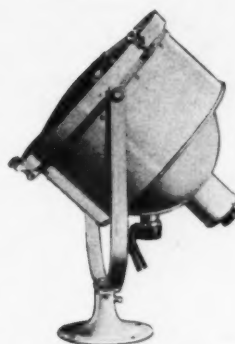
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Floodlight No. FLC 501  
—One of a wide variety  
of Permaflexor units for  
white and color flood-  
lighting.



## a big factor in business

*Of all the "Pittsburgh" reflectors made since we began using our secret coppering process on August 1, 1916—not even 1/1000th of 1%—not even one in one hundred thousand has ever been reported to us as having the backing crack, check or peel or the silver plating tarnish.*

Modern business demands more and more light. Every city has its "Great White Way". Illumination is the index of progress. The picture above shows the beautiful effect of Permaflexor Flood Lighting on a business building.

Contractors who have any problem of lighting—exterior or interior—are offered the benefits of our twenty years' experience in fields of special illumination—flood lighting, show window lighting, cove lighting, or indirect lighting.

Permaflexor engineering insures correct principle and the economical service which *permanence of reflecting surface* makes possible.

*Write for pocket catalog also the Permaflexor Magazine*

**PITTSBURGH REFLECTOR COMPANY**  
304 Ross Street Pittsburgh, Pa.

# Permaflexor

## LIGHTING

THE SILVERED GLASS REFLECTORS WITH  
THE *Permanent* REFLECTING SURFACE

# "Time-to Modernize"

with the "CIRCLE T" LINE

TYPES "A" "C" and "R.M"  
Industrial Switches

TYPE "R. B" Safety  
Switches—Side Operated

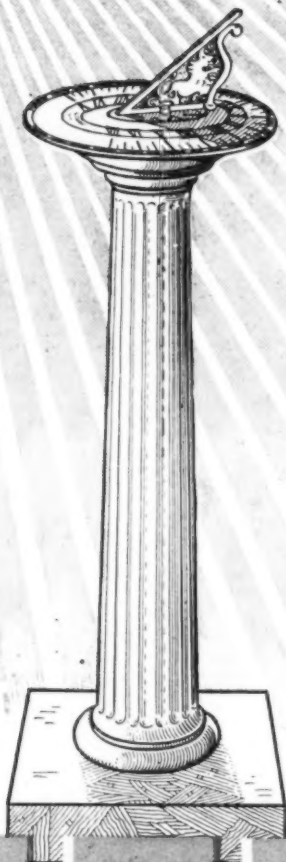
MOTOR STARTING SWITCHES

With commodity prices coming down industrial production costs must be cut. This can only be done by using modern equipment.

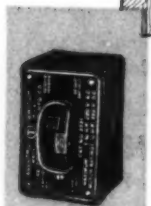
The "Circle T" line is modern in design and will give to factories the most economical switch operation.

Now is the time for industrials to discard old switching equipment and substitute for it modern "Circle T" Safety Switches.

*Sell industrial modernization using  
"Circle T" Products.*



Type "R.B."



Tumbler Switch



Meter Service



Type "M. 7 1/2"



Type "T.M. 7 1/2"



Type "A"

THE TRUMBULL ELECTRIC MANUFACTURING COMPANY  
PLAINVILLE CONNECTICUT

New York  
803 Lincoln Bldg.

Philadelphia  
511-519 N. Broad St.

Boston  
1002 Statler Bldg.

A GENERAL ELECTRIC  ORGANIZATION

Atlanta

San Francisco  
432 Fourth St.

Chicago  
2001 W. Pershing Rd.

Detroit Branch  
415 Brainerd St.



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